

FIGURE 1A

CATCATCAAT AATCTACAGT ACACTGATGG CAGCGGTCCA ACTGCCAATC ATTTTTGCCA	60
CGTCATTTAT GACGCAACGA CGGCGAGCGT GGCCTGCTGA CGTAACTGTG GGGCGGAGCG	120
CGTCGCGGAG GCGGCGGCGC TGGGCGGGGC TGAGGGCGGC GGGGCGGCG CGCGGGGCGG	180
CGCGCGGGGC GGGGCGAGGG GCGGAGTTCC GCACCCGCTA CGTCATTTTC AGACATTTTT	240
TAGCAAATTT GCGCCTTTTG CAAGCATTTT TCTCACATTT CAGGTATTTA GAGGGCGGAT	300
TTTTGGTGTT CGTACTTCCG TGTCACATAG TTTACTGTCA ATCTTCATTA CGGCTTAGAC	360
AAATTTTCGG CGTCTTTTCC GGGTTTATGT CCCCAGTCAC CTTTATGACT GTGTGAAACA	420
CACCTGCCCA TTGTTTACCC TTGGTCAGTT TTTTCGTCTC CTAGGGTGGG AACATCAAGA	480
ACAAATTTGC CGAGTAATTG TGCACCTTTT TCCGCGTTAG GACTGCGTTT CACACGTAGA	540
CAGACTTTTT CTCATTTTCT CACACTCCGT CGTCCGCTTC AGAGCTCTGC GTCTTCGCTG	600
CCACCATGAA GTACCTGGTC CTCGTTCTCA ACGACGGCAT GAGTCGAATT GAAAAAGCTC	660
TCCTGTGCAG CGATGGTGAG GTGGATTTAG AGTGTCATGA GGTACTTCCC CCTTCTCCCG	720
CGCCTGTCCC CGCTTCTGTG TCACCCGTGA GGAGTCCTCC TCCTCTGTCT CCGGTGTTTC	780
CTCCGTCTCC GCCAGCCCCG CTTGTGAATC CAGAGGCGAG TTCGCTGCTG CAGCAGTATC	840
GGAGAGAGCT GTTAGAGAGG AGCCTGCTCC GAACGGCCGA AGGTCAGCAG CGTGCACTGT	900
GTCCATGTGA GCGGTTGCCC GTGGAAGAGG ATGAGTGTCT GAATGCCGTA AATTTGCTGT	960
TTCTGATCC CTGGCTAAAT GCAGCTGAAA ATGGGGGTGA TATTTTAAAG TCTCCGGCTA	1020
TGTCTCCAGA ACCGTGGATA GATTTGTCTA GCTACGATAG CGATGTAGAA GAGGTGACTA	1080
GTCACTTTTT TCTGGATTGC CCTGAAGACC CCAGTCGGGA GTGTTTATCT TGTGGGTTTC	1140
ATCAGGCTCA AAGCGGAATT CCAGGCATTA TGTGCAGTTT GTGCTACATG CGCCAAACCT	1200
ACCATTGCAT CTATAGTAAG TACATTCTGT AAAAGAACAT CTTGGTGATT TCTAGGTATT	1260
GTTTAGGGAT TAACTGGGTG GAGTGATCTT AATCCGGCAT AACCAAATAC ATGTTTTTAC	1320
AGGTCCAGTT TCTGAAGAGG AAATGTGAGT CATGTTGACT TTGGCGCGCA AGAGGAAATG	1380
TGAGTCATGT TGACTTTGGC GCGCCCTACG GTGACTTTAA AGCAATTTGA GGATCACTTT	1440
TTTGTTAGTC GCTATAAAGT AGTCACGGAG TCTTCATGGA TCACTTAAGC GTTCTTTTGG	1500
ATTTGAAGCT GCTTCGCTCT ATCGTAGCGG GGGCTTCAAA TCGCACTGGA GTGTGGAAGA	1560
GGCGGCTGTG GCTGGGACGC CTGACTCAAC TGGTCCATGA TACCTGCGTA GAGAACGAGA	1620
GCATATTTCT CAATTCTCTG CCAGGGAATG AAGCTTTTTT AAGGTTGCTT CGGAGCGGCT	1680
ATTTTGAAGT GTTTGACGTG TTTGTGGTGC CTGAGCTGCA TCTGGACACT CCGGGTCGAG	1740
TGGTCGCGC TCTTGCTCTG CTGGTGTTCA TCCTCAACGA TTTAGACGCT AATTCTGCTT	1800
CTTCAGGCTT TGATTCAGGT TTTCTCGTGG ACCGTCTCTG CGTGCCGCTA TGGCTGAAGG	1860

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FIGURE 1B

CCAGGGCGTT CAAGATCACC CAGAGCTCCA GGAGCACTTC GCAGCCTTCC TCGTCGCCCCG	1920
ACAAGACGAC CCAGACTACC AGCCAGTAGA CGGGGACAGC CCACCCCGGG CTAGCCTGGA	1980
GGAGGCTGAA CAGAGCAGCA CTCGTTTCGA GCACATCAGT TACCGAGACG TGGTGGATGA	2040
CTTCAATAGA TGCCATGATG TTTTTTATGA GAGGTACAGT TTTGAGGACA TAAAGAGCTA	2100
CGAGGCTTTG CCTGAGGACA ATTTGGAGCA GCTCATAGCT ATGCATGCTA AAATCAAGCT	2160
GCTGCCCGGT CGGGAGTATG AGTTGACTCA ACCTTTGAAC ATAACATCTT GCGCCTATGT	2220
GCTCGGAAAT GGGGCTACTA TTAGGGTAAC AGGGGAAGCC TCCCCGGCTA TTAGAGTGGG	2280
GGCCATGGCC GTGGGTCCGT GTGTAACAGG AATGACTGGG GTGACTTTTG TGAATTGTAG	2340
GTTTGAGAGA GAGTCAACAA TTAGGGGGTC CCTGATACGA GCTTCAACTC ACGTGCTGTT	2400
TCATGGCTGT TATTTTATGG GAATTATGGG CACTTGTATT GAGGTGGGGG CGGGAGCTTA	2460
CATTCGGGGT TGTGAGTTTG TGGGCTGTTA CCGGGGAATC TGTCTACTT CTAACAGAGA	2520
TATTAAGGTG AGGCAGTGCA ACTTTGACAA ATGCTTACTG GGTATTACTT GTAAGGGGGA	2580
CTATCGTCTT TCGGGAAATG TGTGTTCTGA GACTTTCTGC TTTGCTCATT TAGAGGGAGA	2640
GGGTTTGTT AAAACAACA CAGTCAAGTC CCCTAGTCGC TGGACCAGCG AGTCTGGCTT	2700
TTCCATGATA ACTTGTGCAG ACGGCAGGGT TACGCCTTTG GGTTCCCTCC ACATTGTGGG	2760
CAACCGTTGT AGGCGTTGGC CAACCATGCA GGGGAATGTG TTTATCATGT CTAAACTGTA	2820
TCTGGGCAAC AGAATAGGGA CTGTAGCCCT GCCCCAGTGT GCTTTCTACA AGTCCAGCAT	2880
TTGTTTGGAG GAGAGGGCGA CAAACAAGCT GGTCTTGGCT TGTGCTTTTG AGAATAATGT	2940
ACTGGTGTAC AAAGTGCTGA GACGGGAGAG TCCCTCAACC GTGAAAATGT GTGTTTGTGG	3000
GACTTCTCAT TATGCAAAGC CTTTGACACT GGCAATTATT TCTTCAGATA TCGGGCTAA	3060
TCGATACATG TACACTGTGG ACTCAACAGA GTTCACTTCT GACGAGGATT AAAAGTGGGC	3120
GGGGCCAAGA GGGGTATAAA TAGGTGGGGA GGTGAGGGG AGCCGTAGTT TCTGTTTTTC	3180
CCAGACTGGG GGGGACAACA TGGCCGAGGA AGGGCGCATT TATGTGCCTT ATGTAAGTGC	3240
COGCCTGCCC AAGTGGTCGG GTTCGGTGCA GGATAAGACG GGCTCGAACA TGTTGGGGGG	3300
TGTGGTACTC CCTCCTAATT CACAGGCGCA CCGGACGGAG ACCGTGGGCA CTGAGGCCAC	3360
CAGAGACAAC CTGCACGCCG AGGGAGCGCG TCGTCCTGAG GATCAGACGC CCTACATGAT	3420
CTTGGTGGAG GACTCTCTGG GAGGTTTGAA GAGGCGAATG GACTTGCTGG AAGAATCTAA	3480
TCAGCAGCTG CTGGCAACTC TCAACCGTCT CCGTACAGGA CTCGCTGOCT ATGTGCAGGC	3540
TAACTTGTG GCGGGCCAAG TTAACCCCTT TGTTTAAATA AAAATACACT CATAAGTTT	3600
ATTATGCTGT CAATAAAATT CTTTATTTTT CCTGTGATAA TACCGTGTCC AGCGTGCTCT	3660

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FIGURE 1C

GTCAATAAGG GTCCTATGCA TCCTGAGAAG GGCCTCATAT ACCATGGCAT GAATATTAAG 3720
 ATACATGGGC ATAAGGCCCT CAGAAGGGTT GAGGTAGAGC CACTGCAGAC TTTCGTGGGG 3780
 AGGTAAGGTG TTGTAAATAA TCCAGTCATA CTGACTGTGC TGGGCGTGGA AGGAAAAGAT 3840
 GTCTTTTAGA AGAAGGGTGA TTGGCAAAGG GAGGCTCTTA GTGTAGGTAT TGATAAATCT 3900
 GTTCAGTTGG GAGGGATGCA TTCGGGGGCT AATAAGGTGG AGTTTAGCCT GAATCTTAAG 3960
 GTTGGCAATG TTGCCCCCTA GGTCTTTGCG AGGATTCATG TTGTGCAGTA CCACAAAAAC 4020
 AGAGTAGCCT GTGCATTGG GGAATTTATC ATGAAGCTTG GAGGGGAAGG CATGAAAAAA 4080
 TTTTGAGATG GCTTTATGGC GCCCCAGGTC TTCCATGCAT TCGTCCATAA TAATAGCAAT 4140
 AGGCCCCGTT TTGGCTGCCT GGGCAAACAC GTTCTGAGGG TGGGCGACAT CATAGTTGTA 4200
 GTCCATGGTC AGGTCTTCAT AGGACATGAT CTTAAAGGCA GGTTTTAGGG TGCTGCTTTG 4260
 AGGAACCAGA GTTCCTGTGG GGCCGGGGGT GTAGTTCCCT TCACAGATTT GGGTCTCCCA 4320
 AGCAAGCAGT TCTTGCGGGG GTATCATGTC AACTTGGGGG ACTATAAAAA AACAGTTTC 4380
 GGGAGGTGGT TGAATGAGGC CCGTAGACAT AAGGTTTCTG AGGAGCTGGG ATTTTCCACA 4440
 ACCGGTTGGT CCGTAGACCA CCCCAATAAC GGGTTGCATG GTAAAGTTTA AAGATTTGCA 4500
 TGAACCGTCA GGGCGCAGAT ATGGCATGGT GGCATTCATG GCATCTCTTA TCGCCTGATT 4560
 ATAGTCTGAG AGGGCATTGA GTAGGGTGGC GCCCCCATA GCCAGTAGCT CGTCCAAGGA 4620
 AGAAAAGTGT CTAAGAGGTT TGAGGCCTTC AGCCATGGGC ATGGACTCTA AGCACTGTTG 4680
 CATGAGAGCA CATTTGTCCC AAAGCTCAGA GACGTGGTCT AGTACATCTC CATCCAGCAT 4740
 AGCTCTTTGT TTCTGGGTT GGGGTGGCTG TTGCTGTAGG GGGCGAGACG GTGACGGTCG 4800
 ATGGCCCGCA GGGTGGGTC TTTCCAGGGC CTGAGCGTCC TCGCCAGGGT CGTCTCGGTG 4860
 ACCGTGAAGG GCTGCTGATG CGTCTGTCTG CTGACCAGCG AGCGCCTCAG GCTGAGCCTG 4920
 CTGGTGCCGA ACTTTTCGTC GCCTAGCTGT TCAGTGGAAT AATAACAAGT CACCAGAAGG 4980
 TCGTAGGAGA GTTGTGAGGT GGCATGGCCT TTGCTCGAAG TTTGCCAGAA CTCTCGGCGG 5040
 CGGCAGCTTG GGCAGTAGAT GTTTTAAAGG GCATATAGTT TGGGGGCTAA GAAGACAGAT 5100
 TCCTGGCTGT GGGCGTCTCC GTGGCAGCGG GGGCACTGGG TCTCGCATTC CACAAGCCAA 5160
 GTCAGCTGAG GGTTGGTGGG ATCAAAGACC AGAGGACGGT TATTACCTTT CAGGCGGTGC 5220
 TTGCCTCGGG TGTCCATGAG TTCCTTTCCC CTTTGGGTGA GAAACATGCT GTCCGTGTCT 5280
 CCGTAGACAA ATTTGAGAAT CCGGTCTTCT AGGGGAGTGC CTCTGTCTTC TAAATAGAGG 5340
 ATGTCTGCCC ATTCAGAGAC AAAGGCTCTA GTCCACGCGA GGACAAATGA AGCTATGTGT 5400
 GAGGGGTATC TGTTATTAAA TATGAGAGAG GATTTTTTTT GCAAAGTATG CAGGCACAGG 5460
 GCTGAGTCAT CAGCTTCCAG AAAGGTGATT GGTTTGTAAG TGTATGTCAC GTGATGGTTC 5520

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1. *Chlorophyll a* and *Chlorophyll b* were determined using a spectrophotometer (Shimadzu UV-1601) at 663 nm and 646 nm, respectively. The concentration of chlorophyll was calculated using the following equations: $Chl\ a\ (mg\ L^{-1}) = 12.7 \times OD_{663}$ and $Chl\ b\ (mg\ L^{-1}) = 22.9 \times OD_{646}$.

TGGGGGTCTC	CCAGGGTATA	AAAGGGGGCG	TCTTCGTCTG	AGGAGCTATT	GCTAGTGGGT	5580
GTGCACTGAC	GGTGCTTCCG	CGTGGCATCC	GTTTGCTGCT	TGACGGGTGA	GTAGGTGATT	5640
TTTAGCTCTG	CCATGACAGA	GGAGCTCAGG	TTGTGAGTFT	CCACGAAGGC	GGTGCTTTTG	5700
ATGTCGTAGG	TGCCGTCTGA	AATGCCTCTA	ACATATTTGT	CTTCCATTTG	GTCAGAAAAG	5760
ACAGTGA CTC	TGTTGTCTAG	CTTAGTGGCA	AAGCTGCCAT	ACAGGGCATT	GGACAGCAGT	5820
TTGGCAATGC	TTCTGAGAGT	TTGGTTTTTC	TCTTTATCCG	CCCTTTCCTT	GGGCGCAATG	5880
TTAAGTTGCA	CGTAGTCTCT	AGCCAGACAC	TCCCACTGGG	GAAATACTGT	GGTGCGGGGG	5940
TCGTTGAGAA	TTTGGACTCT	CCAGCCGCGG	TTATGAAGCG	TGATGGCATC	CAAACAAGTT	6000
ACCACTTCCC	CCCGTAGTGT	CTCGTTGGTC	CAGCAGAGGC	GACCTCCTTT	TCTGGAGCAG	6060
AAGGGCGGTA	TAACGTCCAA	GAATGCTTCT	GGGGGTGGGT	CTGCATCAAT	GGTGAATATC	6120
GCGGGCAGTA	GGGTGCGATC	AAAATAGTCA	ATGGGTCTGT	GCAACTGGGT	TAGGCGGTCT	6180
TGCCAGTTTT	TAATTGCAAG	CGCTCGATCA	AAGGGGTTC A	AAGGTTTTCC	CGCTGGGAAA	6240
GGATGGGTGA	GGGCGCTGGC	ATACATGCCG	CAGATGTCAT	ACACATAGAT	GGCTTCTGTT	6300
AGGACGCC TA	TGTAGGTAGG	ATAGCATCGG	CCGCCCCGAA	TACTTTCTCT	AACGTAATCA	6360
TACATTT CAT	TGGAAGGGGC	TAGTAGAAA G	TTGCCCAGAG	AGCTCCTGTT	GGGACGCTGG	6420
GATCGGTAGA	CTACCTGTCT	GAAGATGGCA	TGGGAATTGG	AGCTGATGGT	GGGCCTTTGG	6480
AGGACATTGA	AATTGCAGTG	GGGCAGCCCC	ACTGACGTGT	GAACAAAGTC	CAAATAAGAT	6540
GCTTGGAGTT	TTTTAACCAA	TTCGGCCGTA	ACCAGCACGT	CCATAGCACA	GTAGTCCAAG	6600
GTGCGTTGCA	CAATATCATA	GGCACCTGAA	TTCTCTTGCA	GCCAGAGACT	CTTATTGAGA	6660
AGGTACTOCT	CGTCGCTGGA	CCAGTAGTCC	CTCTGAGGAA	AAGAATCTGC	GTCGGTTCGG	6720
TAGGTACCTA	ACATGTAAAA	TTCAATTACA	GCTTTGTAAG	GGCAGCAGCC	TTTTTCCACG	6780
GGTAAAGCGT	AAGCGGCAGC	TGCGTTCCTG	AGACTCGTGT	GCGTGAGAGC	AAAGGTATCT	6840
CGGACCATGA	ACTTCACAAA	CTGAAATTTA	TAGTCTGCTG	AGGTGGGAGT	GCCTTCCTCC	6900
CAGTCTTTGA	AGTCTTTTCG	AGCAGCATGT	GTGGGGTTAG	GCAGAGCAAA	AGTTAAGTCA	6960
TTGAAAAGAA	TCTTGCCACA	ACGAGGCATG	AAATTTCTAC	TGACTTTAAA	AGCAGCTGGA	7020
ATACCTTGTT	TGTTGTTAAT	GACTTGTGCG	GCTAGAACAA	TCTCATCAAA	GCCGTTTATG	7080
TTGTGCCCTA	CGACATAGAC	TTCCAAGAAA	GTCGGTTGCC	CTTTGAGTTC	AAGCGTACAC	7140
AGTTCCTCGA	AAGGAATGTC	GCTGGCATGG	ACATAGCCCA	GTTTGAGGCA	GAGGTTTTCT	7200
AAGCACGGAT	TATCTGCCAG	GAAGTGGCGC	CAAAGCAAAG	TGCTGGCAGC	TTCTTGAAGG	7260
GCATCCC GAT	ACTGTTTAAA	CAAGCTGCCT	ACTTTGTTTC	TTTGCGGGTT	GAGGTAGTAG	7320

FIGURE 1E

AAGGTATITG CTTGCTTTGG CCAGCTTGAC CACTTTTGCT TTTTAGCTAT GTTAACAGCC 7380
 TGTTGCGATA GCTGCGCGTC ACCAAACAAA GTAAACACGA GCATAAAAGG CATGAGTTGC 7440
 TTGCCAAAGC TACCGTGCCA AGTGTATGTT TCCACATCAT AGACGACAAA GAGGCGCCGG 7500
 GTGTCGGGGT GAGCGGCCCCA GGGGAAAAAC TTTATTTCTT CCCACCAGTC CGAAGATTGG 7560
 GTGTTTATGT GGTGAAAGTA AAAGTCCCGG CGGCGAGTGC TGCAGGTGTG CGTCTGCTTA 7620
 AAATACGAAC CGCAGTCGGC ACATCGCTGG ACCTCTGCGA TGGTGTCTAT GAGATAGAGC 7680
 TTTCTCTTGT GAATAAGAAA GTTGAGGGGG AAGGGAAGGC GCGGCCTGTC AGCGCGGGCC 7740
 GGGATGCTTG TAATTTTCAG CTTCCCCTTG TATGTTTTGT AAACGCACAT ATTTGCGTTG 7800
 CAGAACCGGA CGAGCGTGTC TTGGAATGAA AGGATATTTT CTGGTTTTAA ATCAAATGGG 7860
 CAGTGCTCCA AGTGCAGTTC AAAAAGGTTT CGGAGACTGC TGGAAACGTC TCGTGATAC 7920
 TTGACTTCCA GGGTGGTCCC GTCTTCAGTC TGACCGTGCA GCCGTAGGGT ACTGCGTTTG 7980
 GCGACCAGGG GCCCCCTTGG GGCTTTCTTT AAAGGGGACG TCGAGGGCCG AGGGGCGGCC 8040
 TTTGCCTTTC GGGCCTGAGG GCGGGTAGCT GGACCGGATC GTTGAGTTTCG GGCATGGGTT 8100
 GCAGCTGTTG GCGCAGGTCT GATGCGTGCT GCACGACTCT GCGGTTGATT CTCTGAATCT 8160
 CCGGGTGTTG GGTGAATGCT ACTGGCCCCG TCACTTTGAA CCTGAAAGAG AGGTCGACAG 8220
 AGTTAATAGA TGCATCGTTA AGCTCCGCCT GTCTAATAAT TTCTTCCACG TCACCGCTGT 8280
 GGTCTCGGTA AGCAATGTCT GTCATAAACC GTTCGATCTC TTCCTCGTCC AGTCTCCGC 8340
 GACCAGCTCG GTGGACCGTG GCTGCCAAGT CCGTGCTAAT GCGTCGCATG AGCTGGGAAA 8400
 AGGCATTGGT TCCCGTTCA TTCCACACTC TGCTGTATAT AACAGCGCCA TCTTCGTCTC 8460
 GGGCTCGCAT GACCACCTGG CCCAAGTTA GCTCCACGTG GCGAGCAAAG ACGGGGCTGA 8520
 GGCGGAGGTG GTGGTGCAGA TAATTGAGAG TGGTGGCTAT GTGCTCCACG ATGAAGAAGT 8580
 AGATGACCCA TCTGCGGATG GTGACTCGT TAATGTTGCC CTCTCGCTCC AGCATGTTTA 8640
 TGGCTTCGTA AAAGTCCACA GCGAAGTTAA AAAACTGCTC GTTGCGGGCG GAGACTGTCA 8700
 GCTCTTCTTG CAGGAGACGA ATGACTTOGG CTACGGCGGC GCGGACTTCT TCGGCAAAGG 8760
 AGCGCGGCGG CACGTCTCTC TCCTCCTCTT CTCCCCCTC CAGCGGGGGC ATCTCCAGCT 8820
 CTACCGGTTT CGGGCTGGGG GACAGGGAAG GCGGTGCGGG CCGAACGACC CGTCGGCGTC 8880
 GGGTGGGCAA GGGGAGACTC TCTATGAATC GCTGCACCAT CTCGCCCCGG CGTATCCGCA 8940
 TCTCCTGGGT AACGGCACGC CCGTGTTCTC GGGGTGCGAG CTCAAAAGCT CCGCCCCGCA 9000
 GTTCGGTCAG AGGCCGCGCC GCGGGCTGGG GCAGGCTGAG TCGGTCAATA ACATGCGCCA 9060
 CCACTCTCTC CGTAGAGGCG GCTGTTTCGA ACCGAAGAGA CTGAGCATCC ACGGGATCGC 9120
 TGAAGCGTTG CACAAAAGCT TCTAACCAGT CGCAGTCACA AGGTAGGCTG AGCATAGGTG 9180

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FIGURE 1F

AGGCTCGCTC GGTGTTGTTT CTGTTTGGCG GCGGGTGGCT GAGGAGAAAA TTAAAGTACG 9240
 CGCACCGCAG GCGCCGGATG GTTGTCAGTA TGATGAGATC CCTGCGACCC GCTTGTTGGA 9300
 TTCTGATGCG GTTTGCAAAG CCCAGGCTT GGTCTTGGCA TCGCCCAGGT TCATGCACTG 9360
 TTCTTGAGAG AATCTCTCTA CGGGCACGTT GCGGCGCTGC GGGGGCAGGG TCAGCCATTT 9420
 CGGTGCGTCC AAACCCACGC AATGGTTGGA TGAGAGCCAA GTCCGCTACT ACGCGCTCTG 9480
 CTAGGACGGC TTGCTGGATC TGCCGCAGCG TTTCATCAAA GTTTTCCAAG TCAATGAAGC 9540
 GGTGCTAGGG GCCCGCGTTT ATGGTGTAGG AGCAGTTTGC CATGGTGGAC CAGTCCACAA 9600
 TCTGCTGATC TACCCGCACC GTTTCTCGGT ACACCAGTCG GCTATAGGCT CGCGTCTCGA 9660
 AAACATAGTC GTTGCAAACG CGCACACGCT ATTGGTAGCC GATTAGGAAG TGCGGCGGCG 9720
 GGTATAAGTA GAGCGGCCAG TTTTGCGTGG CCGGCTGTCT GCGCCCCAGA TTCCGTAGCA 9780
 TGAGTGTGGG GTATCGGTAC ACGTGACGCG ACATCCAGGA GATGCCCCGCG GCCGAAATGG 9840
 CGGCCCTGGC GTACTCCCGG GCCCGGTTCC ATATATTCTT GAGAGGACGA AAGATTCCAT 9900
 GGTGTGCAGG GTCTGCCCCG TAAGACGCGC GCAATCTCTC GCGCTCTGCA AAAAACATAC 9960
 AGATGAAACA TTTTGGGGC TTTTCAGATG ATGCATCCCG CTTTACGGCA AATGAAGCCC 10020
 AGATCCGCGG CAGTGGCGGG GGTTCCTGCT GCGGCCGCGG GCGCGAGCGT TGAATCAGGC 10080
 GGTACTACCG CGCCCCCTGG TGTCGAGTGC GCGGAGGGGG AAGGGTTAGC TCGGCTGTAC 10140
 GCGCACCCGG ACACACACCC GCGCGTGTGC GTGAAGCGCG ATGCGGCGGA GGCGTACGTT 10200
 CCCCAGGAGA ACTTATTCCG CGACCGCAGC GGGGAGGAAC CCGAAGGGAG CCGAGACCTA 10260
 AAGTACAAGG CCGGTGCGCA GTTGCGCGCC GGCATGCCCC GAAAGCGGGT GCTGACCGAA 10320
 GGGGACTTTG AGGTGGATGA GCGCACTGGC ATCAGCTCAG CCAAAGCCCA CATGGAGGCG 10380
 GCGGATCTAG TGCGGGCTTA CGAGCAAACG GTGAAGCAAG AGGCTAATTT TCAAAAGTCA 10440
 TTTAATAACC ACGTGCGGAC ACTGATCTCC CGCGAGGAGA CCACCCTGGG TTTGATGCAC 10500
 TTGTGGGACT TTGCGGAGGC ATACGCGCAG AACCCCGGCA GCAAGACCCT TACGGCCCAA 10560
 GTCTTTCTCA TCGTGCAGCA CTTGCAAGAT GAGGGCATT TTTGGGAAGC TTTCTTAAGC 10620
 ATAGCAGAGC CCGAGGGACG ATGGATGCTA GATCTGCTAA ACATATTGCA GTCCATTGTG 10680
 GTGCAAGAGC GCCAGCTTTC GCTATCTGAA AAGGTAGCCG CCGTGAACTA CTCCGTAGTT 10740
 ACCCTGGGCA AACATTATGC CCGCAAGATC TTTAAGAGCC CCTTTGTGCC GCTTGACAAG 10800
 GAGGTGAAGA TCAGTACATT TTATATGCGC GCGGTGCTTA AGGTCCTGGG TCTAAGTCAC 10860
 GACCTGGGCA TGTACAGAAA CGAAAAGGTG GAGAAGCTAG CTAGCATAGG CAGGCGTTCC 10920
 GGAGATGAGC GACGCGGAGC TGCTGTTCAA CCTCCGCCGC GCACTAACCA CTGGCGATTG 10980

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FIGURE 1G

TGAAGCATTG GATGAAGGCG GGGACTTTAC CTGGGCTCCG CCAACTCGCG CGACCGCGGC 11040
 GGCCGCTTTG CCGGGGCCCC AGTTTGAGAG TGAAGAGACG GACGATGAAG TCGACGAATG 11100
 AGTGATGCGG ACCCCCGTAT CTTTCAGCTG GTCAGTCGGC AAGAGACCGT AGCCATGGCG 11160
 GAAGCGCCCC GAAGCCTGGG CCCC GCCCCT TCCAATCCTA GTTTGCAGGC TTTATTCCAA 11220
 AGCCAGCCCC GCGCCGAGCA GGAGTGGCAC GGCCTGCTGG AGAGAGTCAT GGCCCTTAAC 11280
 AAAAATGGAG ACTTTGGCTC GCAGCCCCAG GCGAACCGGT TTGGAGCCAT CCTCGAAGCC 11340
 GTGGTGCCCC CGCGCTCCGA TCCCACCCAT GAAAAAGTGC TAGCTATTGT GAATGCGCTC 11400
 TTGGAGACTC AGGCCATCCG TCGCGATGAG GCCGGACAGA TGTACACCGC GCTGTTGCAG 11460
 CGGGTGGCCA GATACAACAG TGTGAATGTG CAGGGCAATT TGGACAGGCT GATTTCAGGAC 11520
 GTGAAGGAGG CTCTGGCGCA GCGCGAGCGC ACCGGGCGCG GGGCCGGCCT AGGGTCTGTG 11580
 GTAGCCTTGA ATGCCTTCCT GAGCACACAG CCAGCGGTGG TGGAGAGGGG CCAGGAGAAC 11640
 TATGTGGCCT TTGTGAGCGC CTTAAACTC ATGGTGACCG AGGCGCCGCA GTCTGAGGTT 11700
 TACCAGGCCG GACCTAGTTT CTTTTTTTCAA ACCAGCCGGC ACGGTTTCGA GACGGTAAAC 11760
 CTCAGTCAGG CCTTTGATAA CTTGCGACCC CTCTGGGGCG TCGCGCGCC AGTACACGAG 11820
 CGTACTACCA TCTCCTCTCT GCTCACACCA AACACCCGCT TGCTCTTGCT CCTCATTGCG 11880
 CCCTTTACGG ACAGCGTGGG CATATCCCGG GACAGTTACC TGGGGCATCT GCTGACCCCT 11940
 TACCGGGAGA CCATAGGTAA CACTCGAGTT GATGAGACCA CGTACAACGA GATCACGGAA 12000
 GTGAGTCGGG CCCTGGGCGC CGAAGACGCG TCTAACTTGC AAGCCACTCT CAACTACTTA 12060
 CTCACAAATA AGCAGAGCAA GTTGCCACAG GAGTTTTTCTC TGAGTCCCGA AGAGGAGCGG 12120
 GTGCTGCGCT ACGTGCAGCA ATCTGTCACT TTATTTTTTAA TGCAGGATGG ACACACGGCC 12180
 ACCACTGCTC TAGATCAGGC TGCGGCCAAC ATAGCGCCCT CGTTTTAOCG GTCCACCGC 12240
 GACTTTATAA ACCGACTGAT GGAATTTTC CAGCGAGCTG CGGCTATGGC CCTGACTAC 12300
 TTTTACAGG CTGTTATGAA TCCCCACTGG CTCCCGCCG CGGGTTTCTT TACTCAGGAG 12360
 TTTGACTTTC CGGAGCCCAA CGGAGGCTTC CTGTGGGATG ATTTGGACAG CGCGCTCCTA 12420
 CGCGCGCACG TAAAAGAAGA GGAGGATCAA GGAGCTGTGG GCGGCACGCC GGCGGCTTCG 12480
 GCGCCCGCGT CTCGCGCGCA CACACCACCG CCGCCGCCCG GTGCCGCGGA CCTCTTTGCT 12540
 CCTAACGCCT TCCGCAATGT GCAAAATAAC GGCCTGGATG AACTTATTGA CGGCTTAAGC 12600
 AGATGGAAGA CTTACGCCCA GGAGAGGCAG GAAGTCGTTG AGCGGCACAG GCGCAGAGAG 12660
 GCGCGTCGCC GGGCGCGCGA GGCGCTCTA GAGTCGAGCG ATGATGACGA CAGCGACCTA 12720
 GGGCCGTTTC TACGGGGCAC GGGGCACCTC GTTCACAACC AGTTTATGCA TCTGAAGCCC 12780
 CGGGGTCCCC GCCAGTTTTG GTAACCGCAC TGTATTAAGC TGTAAGTCCT CTCATTTGAC 12840

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FIGURE 1H

ACTTACAAA GCCATGGTCT TGCTTCGCCT CTGACACTTT CTCTCCCCC ACACGCGGCA 12900
 CCCTACAGCC TAGGGGCGAT GCTCCAGCCC GAACTGCAGC CAATTCCGCT GTCCCGCCGC 12960
 CGGCTTATGA GGCGGTGGTG GCTGGGGCCT TCCAGACGCT TTCTCTTCGA CGAGATCCAC 13020
 GTCCCGCCGC GATATGCTGC CGCGTCTGCG GGGAGAAACA GTATCCGTTA TTCCATGCTG 13080
 CCCCCGTTGT ATGACACCAC GAAGATATAC CTTATCGACA ACAAATCTTC AGACATCCAA 13140
 ACTCTGAATT ACCAAAACGA CCACTCAGAT TACCTCACTA CCATCGTGCA GAACAGCGAC 13200
 TTCACGCCCC TGGAGGCTAG CAACCACAGC ATCGAGCTAG ACGAGCGGTC CCGCTGGGGC 13260
 GGAAACCTTA AAACCATCCT TTATACAAAC CTGCCTAATA TCACCCAGCA CATGTTTTCT 13320
 AACTCTTTTC GGGTAAAGAT GATGGCCTCA AAAAAAGACG GCGTGCCCCA GTACGAGTGG 13380
 TTCCCCCTAA GGCTGCCCCA GGGTAACTTT TCTGAGACTA TGGTCATTGA CCTCATGAAC 13440
 AATGCCATCG TAGAGCTGTA CTTGGCTTTG GGGCGCCAGG AGGGCGTGAA GGAAGAGGAC 13500
 ATCGGGGTAA AGATCGATAC GCGCAACTTT AGTCTGGGCT ATGACCCGCA GACCCAGTTA 13560
 GTGACGCCCC GCGTATACAC CAATGAAGCT ATGCATGCGG ACATCGTGTT GCTGCCGGGC 13620
 TGTGCTATAG ACTTTACGCA CTCCCGATTA AACAACTCT TGGGCATACG CAAGCGTTTT 13680
 CCGTACCAAG AGGGCTTCGT CATCTCCTAT GAGGACCTTA AGGGGGGTAA CATCCCCGCT 13740
 TTGATGGACG TGGAGGAGTT TAACAAGAGC AAGACGGTTC GAGCTTTGCG GGAGGACCCC 13800
 AAGGGGCGCA GTTATCACGT GGGCGAAGAC CCAGAAGCCA GAGAAAACGA AACCGCCTAC 13860
 CGCAGCTGGT ACCTGGCTTA CAATTACGGG GACCCAGAAA AAGGGGTGCG GGCCACCACA 13920
 CTGCTGACTA CCGGCGACGT GACCTGCGGG GTGGAACAGA TCTACTGGAG CTGCGCGGAC 13980
 ATGGCACTGG ACCCAGTCAC TTTCAAGGCT TCGCTGAAA CTAGCAATTA CCCCCTGGTG 14040
 GGCACAGAAC TTTTGCCACT GGTGCCGCGT AGCTTTTATA ACGCTCAGGC TGTGTACTCA 14100
 CAGTGGATAC AAGAAAAAAC TAACCAGACC CACGTTTTCA ATCGCTTTCC CGAAAATCAG 14160
 ATCTTGGTGC GGCCCCCTGC GCCTACCATC ACGTCCATAA GTGAAAATAA GCCCAGCTTG 14220
 ACAGATCACG GAATCGTGCC GCTCCGGAAC CGCTTGGGGG GCGTGCAACG TGTGACTTTG 14280
 ACTGACGCGC GCGGAAGATC CTGCCCCTAC GTCTACAAGA GCTTAGGCAT TGTGACGCCG 14340
 CAAGTGCTAT CTAGCCGCAC GTTTTAAGCA GACAGGGGCA CAGCAGCCGT TTTTTTTTTT 14400
 TTTTTTTCG TCCACCAGGG ACTGTCAGGA ACATGGCCAT TCTAATCTCT CCTAGCAATA 14460
 ACACGGGCTG GGGCCTGGGA TGCAATAAGA TGTACGGGGG CGCTCGCATA CGTTCAGACT 14520
 TGCATCCAGT GAAGGTGCGG TCGCATTATC GGGCCGCCTG GGGCAGCCGC ACCGGTCGGG 14580
 TGGGTCGCCG CGCAACCGCA GCTTTAGCCG ATGCCGTGCG GGCCACCGGT GATCCGGTGG 14640

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FIGURE 11

CCGACACAAT CGAGGCGGTG GTGGCTGACG CCCGCCAGTA CCGGCGCCGC AGACGGCGAG 14700
 GGGTGCGCCG AGTCAGAAGG TTGCGTCGGA GCGCCCGCAC TGCCCTGCAG CGACGGGTTC 14760
 GTAGCGTACG CCGACAAGTG GCGAGGGCCC GCAGGGTGGG CCGGCGCGCG GCCGCTATCG 14820
 CAGCAGACGC GGCCATGGCC ATGGCGGCGC CAGCTCGGCG ACGCCGTAAC ATCTACTGGG 14880
 TACGCGATGC GGCAACCGGA GCGCGGTTT CCGTGACAAC CCGGCCTACG GTCAGCAACA 14940
 CCGTTTGAAA TGTCTGCTAC TTTTTTTTGC TTCAATAAAA GCGCGCCGAC TGATCAGCCA 15000
 CACCTTGTC ACGAGAATTC TTTCAAACCA TTGCGCTCTC AGCGCGCGCG CCGATAAACC 15060
 CACTGTGATG GCCTCCTCTC GGTTGATTAA AGAAGAAATG TTAGACATCG TGGCGCCTGA 15120
 GATTTACAAG CGCAAACGGC CCAGGCGAGA ACGCGCAGCA CCGTATGCTG TGAAGCAGGA 15180
 GGAGAAGCCT TTAGTAAAGG CGGAGCGCAA AATTAAGCGC GGCTCCAGAA AGCGGGCCTT 15240
 GTCAGGCGTT GACGTTCTCT TGCCCGATGA CGGCTTTGAG GACGACGAGC CCCACATAGA 15300
 ATTTGTGTCT GCGCCGCGTC GGCCCTACCA GTGGAAGGGC AGGCGGGTGC GCCGGGTTTT 15360
 GCGTCCCGGC GTGGCCGTTA GTTTCACGCC CGGCGCGCGC TCCCTCCGTC CGAGTTCCAA 15420
 GCGGGTGTAT GACGAGGTGT ACGCAGACGA CGACTTCTTA GAAGCGGCCG CGGCCCCTGA 15480
 GGGGGAGTTT GCTTACGGAA AGCGGGGACG CGAGGCGGCC CAGGCCCAGC TGCTACCGGC 15540
 TGTGGCCGTG CCGGAACCGA CTTACGTAGT TTTGGATGAG AGCAACCCCA CCCCAGCTA 15600
 CAAGCCTGTA ACCGAGCAGA AAGTTATTCT TTCCCGCAAG CGGGGTGTGG GGAAGGTAGA 15660
 GCCTACCATC CAGGTTTTAG CTAGCAAGAA GCGGCGCATG GCGAGAATG AGGATGACCG 15720
 CGGGGCCGGC TCCGTGGCCG AAGTGCAGAT GCGAGAAGTT AAACCGGTAA CCGCTGCCTT 15780
 GGGTATTGAG ACCGTGGATG TTAGCGTGCC CGACCACAGC ACTCCCATGG AGGTGCTGCA 15840
 GAGTCTCAGT CGGGCGGCTC AAGTAGCTCA ACGCCTGACC CAACAACAGG TGCGGCCTTC 15900
 GGCTAAGATT AAAGTGGAGG CCATGGATCT TTCTGCTCCG GTAGACGCAA AGCCTCTTGA 15960
 CTTAAACCCC GTGGACGTAA AGCCGACCCC GACCTTCGTG CTTCCAGCT TTCGTTCACT 16020
 CAGCACCCAA ACTGACTCTT TGCCCGCGGC AGTGGTGTG CCGCGCAAGC CCCGCGTGCA 16080
 CCGTGCTACT AGGCGTACTG CGCGCGGCTT GCTGCCCTAT TACCGCCTGC ATCCTAGCAT 16140
 CACGCCGACA CCGGGTTACC GAGGATCTGT CTACACGAGC TCGGGTGTGC GCCTGCCCGC 16200
 CGTCCGGGCG CCGCGTCCG CGCCGTACCC GCAGGGCGAC TCCCCGCTC AGCGCTGCCG 16260
 CGGCCGCGGC GCTGCTGCCC GCGGTGCGCT ATCACCCTAG CATCCGCCAA GCGGCCACAG 16320
 TAACCCGGCT CCGCCGTAA GCGCTGTGAA ACTGCAACAA CAACAACAAA AATAAAAAAA 16380
 AGTCTCCGCT CCACTGTGCA CCGTTGTCCA TCGGCTAATA AAGTCCCGCT TTGTGCGCCG 16440
 CAGGAACCAC TATCCGTAAC CTGCGAAAAT GAGTCCCCGC GGAAATCTGA CTTACAGACT 16500

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FIGURE 1J

GAGAATACCG GTCGCCCTCA GTGGCCGGCG CCGGCGCCGA ACAGGCTTGC GAGGAGGGTC 16560
 TGGGTACCTG CTCGGCCGCC GCAGAAGGCG CGCGGGCGGC GGCCGCCTGC GCGGGGGCTT 16620
 CCTTCCCTC CTGGCTCCCA TCATTGCAGC CGCCATCGGC GCAATCCCCG GCATCGCATC 16680
 AGTGGCCATT CAGGCGGCCC ACAACAAATA GGGACAGTGT AAAGAAAGCT CAATCTCAAT 16740
 AAAACAAACC GCTCGATGTG CATAACGCTC TCGGCCTGCA ACTTCTGCTG CTTACGTCTT 16800
 TGACCAAAGT CACTACTGTT TTCCTTTTAC CCAGAGCCGG CGCCAGCCCC ACACAGCTTG 16860
 TTAACACGCC ATGGACGAAT ACAATTACGC GGCTCTTGCT CCCC GGCAAG GCTCCCGACC 16920
 CATGCTGAGC CAGTGGTCCG GCATCGGCAC GCACGAAATG CACGGCGGAC GTTTTAATCT 16980
 GGGCAGTTTG TGGAGCGGGA TCAGGAATGT GGGCAGCGCG TTAAGAACTG GGGCTCTCGG 17040
 GCCTGGCACA GCAATGCGGG CAAGCGTTGC GCGCCAGCT GAAAAAGACG GGCTTGCAAG 17100
 AAAAGATATT GAGGGCGTTA GCGCCGGTAT CCACGGAGCC GTGGATCTGG GCCGTCAGCA 17160
 GCTAGAGAAA GCTATTGAGC AGCGCCTAGA GCGTCGCCCC ACCGCTGCCG GTGTGGAAGA 17220
 CCTTCCGCTT CCCCCGGGAA CAGTCTTAGA AGCTGATCGT TTACCGCCCT CCTACGCCGA 17280
 AGCGGTGGCT GAGCGCCCGC CGCCGGCTGA CGTTCTCCTG CCCGCATCCT CAAAGCCGCC 17340
 GGTGGCGGTG GTGACCTTGC CCCC GAAAAA GAGAGTGTCT GAAGAGCCTG TGGAGGAAGT 17400
 TGTGATTCTG TCCTCCGCAC CGCCGTCGTA CGACGAGGTT ATGGCACC GC AGCCGACTCT 17460
 GGTAGCCGAG CAGGGCGCCA TGAAAGCAGT GCCCGTGATT AAGCCGGCTC AACCTTTTAC 17520
 CCCAGCTGTG CACGAAACGC AACGCATAGT GACCAACTTG CCAATCACCA CAGCTGTGAC 17580
 ACGGCGACGC GGGTGGCAGG GCACTCTGAA TGACATCGTG GGCCTCGGCG TTCGTACCGT 17640
 GAAGCGCCGG CGGTGCTATT GAGGGGGCGC GCAGCGGTAA TAAAGAGAAC ATAAAAAGC 17700
 AGGATTGTGT TTTTGTGTTA GCGGCCACTG ACTCTCCCTC TGTGTGACAC GTCCTCCGCG 17760
 AGAGCGTGAT TGATTGACCG AGATGGCTAC CCGTTCGATG CTGCCGCAAT GGTCCTACTG 17820
 CACATCGCCG GTCAGGACGC GTCCGAGTAC CTGTCCCCCG GCTTGGTGCA ATTGACACAA 17880
 GCCACCGAAT CCTACTTTAA CATTGGGAAC AAGTTTAGAA ACCCCACCGT CGCCCCGACG 17940
 CACGATGTCA CCACGGAGCG TTCGCAGCGT CTGCAGCTCC GCTTCGTGCC CGTAGACCGG 18000
 GAGGACACAC AGTACTCCTA CAAAACCCGC TTCCAGCTAG CCGTGGGCGA CAACCGGGTG 18060
 CTGGACATGG CCAGCACGTA TTTTGACATC CGCGGTACGC TGGAGAGGGG CGCCAGTTTC 18120
 AAGCCTTACA GCGGCACGCG CTACAACCTC TTTGCCCCCA ACAGTGCCCC TAACAATACG 18180
 CAGTTTAGGC AGGCCAACAA CGGTATCCTT GCTCAGACCA TAGCTCAAGC TTCTTACGTG 18240
 GCTACCATCG GCGGTGCCAA CAATGACTTG CAAATGGGTG TGGACGAGCG TCAGCAGCCG 18300

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FIGURE 1K

GTGTATGCGA ACACTACGTA CCAGCCGGAA CCTCAGCTCG GCATTGAAGG TTGGACAGCT 18360
 GGATCCATGG CGGTCATCGA TCAAGCAGGC GGGCGGGTTC TCAGGAACCC TACTCAAAC 18420
 CCCTGCTACG GGTCTATGC TAAGCCGACT AACGAGCACG GGGGCATTAC TAAAGCAAAC 18480
 ACTCAGGTGG AGAAAAAGTA CTACAGAACA GGGGACAACG GTAACCCGGA AACAGTGTTT 18540
 TATACTGAAG AGGCTGACGT GCTAACGCCC GACACCCACC TTGTTACGC GGTACCGGCC 18600
 GCGGATCGGG CAAAGGTGGA GGGGCTATCT CAGCACGCAG CTCCCAACAG GCCGAACTTT 18660
 ATCGGCTTTC GGGACTGCTT TGTAGGCTTG ATGTATTATA ACAGCGGGG CAACCTGGGC 18720
 GTCTTAGCGG GTCAATCCTC TCAGCTGAAT GCCGTGGTAG ACCTGCAAGA CCGCAACACT 18780
 GAGCTTTCCT ATCAGATGCT TCTTGCAAAC ACGACGGACA GATCCCGCTA TTTTAGCATG 18840
 TGGAACCAAG CCATGGACTC GTACGACCCG GAGGTCAGGG TGATAGATAA CGTGGGCGTA 18900
 GAGGACGAGA TGCCTAATTA CTGCTTTCCG TTGTCGGGGG TTCAGATTGG AAACCGTAGC 18960
 CACGAGGTTT AAAGAAACCA ACAACAGTGG CAAAATGTAG CTAATAGTGA CAACAATTAC 19020
 ATAGGCAAGG GGAACCTACC GGCCATGGAG ATAAATCTAG CGGCCAATCT CTGGCGTTCC 19080
 TTTTGTACA GTAATGTGGC GTTGTACTTG CCAGACAACC TTAAATTCAC CCCTCACAAC 19140
 ATTCAACTCC CGCCTAACAC GAACACCTAC GAGTACATGA ACGGGCGAAT CCCCCTTAGC 19200
 GGCCTTATTG ATACGTACGT AAATATAGGC ACGCGGTGGT CGCCCGATGT GATGGACAAC 19260
 GTGAATCCCT TTAACCACCA CCGCAACTCG GGCCTGCGTT ACCGCTCCCA GCTGCTGGGC 19320
 AACGGCGGCT TCTGCGACTT TCACATTCAG GTGCCACAAA AGTTTTTTGC TATTCGAAAC 19380
 CTGCTTCTCC TGCCCGGCAC GTACACTTAC GAGTGGTCCT TTAGAAAGGA CGTAAACATG 19440
 ATCCTTCAGA GCACTCTGGG CAATGATCTG CGGGTCGATG GGGCCACTGT TAATATTACC 19500
 AGCGTCAACC TCTACGCCAG CTTCTTTCCO ATGTCACATA ACACCGCTTC CACTTTGGAA 19560
 GCTATGCTCC GCAACGACAC TAATGACCAG TCTTTTAATG ACTATCTCTC GGCGGCTAAC 19620
 ATGTTGTATC CCATTCCGCC CAATGCCACC CAACTGCCCA TCCCTCACG CAACTGGGCA 19680
 GCGTTCCGTG GCTGGAGTCT CACCCGGCTA AAACAGAGGG AGACACCGGC GCTGGGGTCC 19740
 CCGTTCCGATC CCTATTTTAC CTATTCGGGC ACCATCCCGT ACCTGGACGG CACTTTTTAC 19800
 CTCAGCCACA CCTTTCGCAA GGTGGCCATC CAGTTTGA CTCTGTGAC CTGGCCCGGC 19860
 AATGACAGGC TTTTAACCCC TAACGAGTTC GAAATAAAAA TAAGTGTGGA CGGTGAAGGC 19920
 TACAACGTGG CTCAGAGCAA TATGACTAAG GACTGGTTCC TGGTGCAGAT GCTAGCGAAT 19980
 TACAACATAG GCTACCAGG ATATCACCTG CCCCCGACT ACAAGGACAG GACATTTTCC 20040
 TTCCTGCATA ACTTCATACC CATGTGCCGA CAGGTTCCCA ACCCAGCAAC CGAGGGCTAC 20100
 TTTGGACTAG GCATAGTGAA CCATAGAACA ACTCCGGCTT ATTGGTTTCG ATTCTGCCGC 20160

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FIGURE 1L

GCTCCGCGCG AGGGCCACCC CTACCCCAA CTGGCCTTAC CCCCTCATTG GGACCCACGC 20220
 CATGCCCTCC GTGACCCAGA GAGAAAGTTT CTCTGCGACC GCACCCTCTG GCGAATCCCC 20280
 TTCTCCTCGA ACTTCATGTC CATGGGGTCC CTCACAGATC TCGGACAGAA CCTACTGTAT 20340
 GCCAATGCCG CGCATGCCCT AGACATGACT TTTGAGATGG ATCCCATCAA TGAGCCCACT 20400
 CTGCTGTACG TTCTGTTTGA GGTGTTTGAC GTGGCCCGCG TTCACCAGCC CCACAGAGGC 20460
 GTGATCGAAG TGGTGTACTT GAGAACGCCA TTCTCAGCCG GCAACGCTAC CACATAAGTG 20520
 CCGGCTTCCC TCTCAGGCC CGCGATGGGT TCTCGGAAG AGGAGCTGAG ATTCATCCTT 20580
 CACGATCTCG GTGTGGGGCC ATAATTCTC GGCACCTTCG ATAAACACTT TCCGGGGTTC 20640
 ATCTCCAAAG ACCGAATGAG CTGTGCCATA GTCAACACTG CCGGACGCGA AACCAGGGGC 20700
 GTGCATTGGC TGGCCATGGC TTGGCACCCA GCCTCGCAGA CCTTTTACAT GTTTGACCCT 20760
 TTCGGTTTCT CGGATCAAAA GCTAAAGCAA ATTTACAAC TTGAGTATCA GGGCCTCCTA 20820
 AAGCGCAGCG CCCTGACTTC CACTGCTGAC CGCTGCCTGA CCCTTATTCA AAGCACTCAA 20880
 TCTGTCCAGG GACCCAACAG CGCCGCCTGC GGTCTGTTCT GCTGCATGTT CCTCCACGCC 20940
 TTTGTCCGCT GGCCGCTTAG GGCCATGGAC AACAAATCCA CCATGAACCT CATCCACGGA 21000
 GTTCCCAACA ACATGTTGGA GAGCCCCAGC TCCCAAATG TGTTTTTGAG AAACCAGCAA 21060
 AATCTGTACC GTTTCCTAAG ACGCCACTCC CCCCATTTTG TTAAGCATGC GGCTCAAATT 21120
 GAGGCTGACA CCGCCTTTGA TAAAATGTTA ACAAATTAGA CCGTGAGCCA TGATTGCAGA 21180
 AGCATGTCAT TTTTTTTTTT TTGTTTAAAA TAAAAACAAC ACATAACATC TGCCGCCTGT 21240
 CCTCCCGTGA TTTCTTCTGC TTTATTTGCA AATGGGGGGC ACCTTAAAC AAAGAGTCAT 21300
 CTGCATCGTA CTGATCGATG GGCAGAATAA CATTCTGATG CTGGTACTGC GGGTCCCAGC 21360
 GGAATTCGGG AATGGTAATG GGGGGGCTCT GTTTAACCAG CGCGGACCAC ATCTGCTTAA 21420
 CCAGCTGCAA GGCTGAAATC ATATCTGGAG CCGAAATCTT GAAATCGCAG TTTCGCTGGG 21480
 CATTAGCCCG CGTCTGCCGG TACACAGGGT TACAGCACTG AAATACTAAC ACCGATGGGT 21540
 GTTCTACGCT GGCCAGGAGT TTGGGATCTT CTACGAGGCT CTTATCTACC GCAGAGCCCG 21600
 CGTTGATATT AAAGGGCGTT ATCTTGATA CCTGACGGCC TAGGAGGGGC AATTGGGAGT 21660
 GACCCAGTT ACAATCACAC TTAAAGGCA TAAGCAGATG AGTTCCGGCA CTTTGCATCC 21720
 TGGGGTAACA GGCTTTCTGA AAGGTCATGA TCTGCCAGAA AGCCTGCAAA GCCTTGGGCC 21780
 CCTCGCTGAA AAACATACCA CAAGACTTTG AGGTAAAGCT GCCGGCCGGC AAAGCGGCGT 21840
 CAAAGTGACA GCAAGCCGCG TCTTCATTCT TTAGCTGCAC TACGTTTATA TTCCACCGGT 21900
 TGGTGGTGAT CTTTGTCTTA TGCGGGGTCT CTTTAAAGC CCGCTGCCCA TTTTCGCTGT 21960

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FIGURE 1M

TCACATCCAT CTCTATCACT TGGTCTTTGG TAAGCATAGG CAGGCCATGC AGGCAGTGAA 22020
 GGGCCCCGTC TCCCCCTCG GTACACTGGT GGCGCCAGAC CACACAGCCC GTGGGGCTCC 22080
 ACGAGGTCGT CCCCAGGCCT GCGACTTTTA ACACAAAATC ATACAAGAAG CGGCCCATAA 22140
 TAGTTAGCAC GGTTTTCTGA GTACTGAAAG TAAGAGGCAG GTACACTTTA GACTCATTAA 22200
 GCCAAGCTTG TGCAACCTTC CTAAACACT CGAGCGTGCC AGTGTGCGGC AGCAAGGTTA 22260
 AGTTTTTAAT ATCCACTTTC AAAGGCACAC ACAGCCCCAC TGCTAATTCC ATGGCCCCGT 22320
 GCCAAGCAAC TTCGTCGGCT TCCAGCAAGG CCCGGCTGGC CGCCGGCAGG GCGGGAGCGG 22380
 CGGCCTCAGC GGCTGGGGCT GAAGGTTTGA AAATCTTGGC GCGCTTAACG GCTGTGACAT 22440
 CTTGCGCGGG GGGCTCAGCG ATCGGCGCGC GCCGTTTGCG GCTGACTTTT TTCCGGGGCG 22500
 TCTCATCTAT CACTAAGGGG TTCTCGTCCC CGCTGCTGTC AGCCGAAGTC GTGGCTCGCG 22560
 TTAAGTCACC GCTGCGATTC ATTATTCTCT CCTAGATAAC GACAACAAAT GGCAGAGAAA 22620
 GGCAGTGAAA ATCAGCGGCC AGAGAACGAC ACTGAGCTAG CAGCGGTTTC AGAAGCCCTA 22680
 GGCGCGGCCG CTTGCGCCCC CTCACGTAAC TCCCCGACTG ACACGGATTC AGGGGTGGAA 22740
 ATGACGCCCA CCAGCAGCCC CGAGCCGCCC GCCGCTCCCC CAAGTTCGCC TGCCGCAGCA 22800
 CCTGCCCCCTC AGAAGAACCA GGAGGAGCTC TCTTCCCCCG AGCCCGCGGT AGCAGCAGCG 22860
 GAGCCAGAAG CCGCTTCGCG GCCCAGACCA CCCACACCA CCGTTCAGGT CCCGCGGGAG 22920
 CCGAGCGAGG ATCAACCTGA CGGACCCGCG ACGAGGCCTT CGTACGTGAG CGAGGATTGC 22980
 CTCATCGGCC ATATCTCTCG CCAGGCTAAC ATTGTTAGAG ACAGCCTGGC AGACCGCTGG 23040
 GAGTTAGAGC CCACCGTGTC GGCTCTCTCC GAGGCTTACG AAAAGCTCCT CTTTTGTCCC 23100
 AAGGTACCAC CCAAGAAGCA AGAGAATGGC ACTTGCGAAC CTGAACCTCG CGTTAATTTT 23160
 TTCCCCACCT TTGTAGTGCC CGAACTTTA GCCACGTACC ACATCTTTTT CCAAAACCAA 23220
 AAAATCCCCC TGTCTTGTG CGCCAACGCG ACCCACACAG ACACCATCAT GCACCTCTAC 23280
 TCGGGGGACT CCTTACCGTG CTCCCCACG CTGCAGCTGG TCAACAAAAT CTTTGAAGGC 23340
 TTGGGCTCAG AGGAGCGGCG CGCAGCCAAC TCGCTGAAAG ATCAAGAGGA TAACAGCGCG 23400
 TTAGTTGAGC TCGAAGGGGA CAGTCCCCGA CTGGCTGTGG TTAAGCGCAC ACTGTCTTTG 23460
 ACACATTTCTG CCTACCCTGC CATAACACTA CCGCCTAAGG TGATGGCAGC TGCTACTGGC 23520
 AGCCTCATTC ATGAATCAGC AGCGACCGCC GAACCGGAAG CTGAGGCGCT GCCAGAAGCC 23580
 GAGGAGCCCCG TGGTTAGTGA CCCTGAACTT GCTCGCTGGT TGGGGCTCAA CTTACAACAG 23640
 GAGCCCGAGG CCACGGCCCA GGCTTTGGAA GAAAGACGCA AGATTATGTT GGCAGTATGC 23700
 TTAGTCACAC TTCAGCTCGA GTGCCTGCAC AAGTTTTTTT CTTCAGAGGA TGTCATCAAA 23760
 AAGCTGGGAG AGAGCCTCCA CTACGCCTTT CGCCACGGCT ACGTGCGCCA AGCCTGCTCC 23820

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FIGURE 1N

ATTTCTAACG TGGAACAAAC GAACATCGTC TCATACCTGG GTATCTTGCA CGAAAACCGC 23880
 TTGGGACAGA GTACCCTACA CGCCACCCTT AAAGACGAGA ACCGCAGAGA CTACATCAGA 23940
 GACACAGTCT TTCTCTTTCT GGTTTATACT TGGCAGACTG CCATGGGCAT TTGGCAGCAG 24000
 TGCCTCGAGA CTGAGAACGT AAAAGAACTT GAAAAGCTCT TGCAAAAAAG CAAGAGGGCT 24060
 CTCTGGACGG GCTTCGACGA GCTCACCATA GCTCAAGACC TAGCTGACAT AGTGTTCCCC 24120
 CCCAAATTCT TGCACACCTT GCAAGCCGGC CTGCCAGACC TTACATCCCA GAGTCTCCTT 24180
 CACAACCTTC GCTCCTTCAT TTTCGAACGC TCGGGCATTC TACCCGCCAT GTGCAATGCA 24240
 CTGCCCACCG ACTTCATCCC TATCAGCTAC CGGGAGTGCC CTCCAACCTT CTGGGCCTAC 24300
 ACCTACCTCT TTAAACTGGC CAATTACCTC ATGTTTCACT CCGACATCGC TTACGATCGG 24360
 AGCGGCCCCG GTCTCATGGA ATGCTACTGT CGCTGCAACC TGTGCAGTCC TCACCGCTGC 24420
 TTGGCGACCA ACCCCGCCCT GCTCAGCGAG ACCCAAGTTA TCGGTACCTT CGAGATTCAG 24480
 GGCCCTCCTG CTCAAGACGG ACAGCCGACC AAACCGCCCC TCAGGCTGAC TGCAGGTCTC 24540
 TGGACTTCCG CCTACCTGCG CAAATTTGTA CCGCAAGACT TCAACGCCCA CAAAATAGCC 24600
 TTCTACGAAG ACCAATCCAA AAAGCCGAAA GTGACCCCCA GCGCTTGTTT CATCACTGAA 24660
 GAAAAAGTTT TAGCCCAATT GCATGAAATT AAAAAAGCGC GGGAAGACTT TCCTCTTAAA 24720
 AAGGGGCACG GAGTGTATCT GGACCCTCAG ACCGGCGAGG AGCTGAACGG ACCCGCACCC 24780
 TCCGCAGCTA GGAATGAAAC CCCGCAGCAT GTCGGCAGCC GGGCCTTCCG CGGCTCAGGC 24840
 TTCGGAGGGC CAACAGCTGC CGCCACAGAC AGCGGGGCTG CAGCCGAGCA AGAGGGCTGT 24900
 GAGGAAGGTA GTAGCTTCTC TGAATCCCAC CGCCGCCCTG GAAGACATAT CCGAGGGGGA 24960
 GGAAGGCTTC CCCCTGACGG ACGAGGAAGA CGGGGACACC CTGGAGAGCG ATTTTCAGCGA 25020
 CTTCACGGAC GAAGACGTGG AGGAGGAGGA TATGATTTGG ATACCCCGCG ACCAGGGGCA 25080
 CTCGGGCGAG CTCGAGGAGG GCGAAATTCC CGCAACGGTA GCGGCGACGG CGGTCAAGAA 25140
 GGGCCAGGGC AAGAAGAGTA GGTGGGACCA GCAGGTCCGC TCCACAGCGC CTCTAAAGGG 25200
 CGCTAGAGGT AAGAGGAGCT ACAGCTCCTG GAAACCCCTC AAGCCCACTA TCCTTTTCATG 25260
 CTTACTGCAG AGCTCCGGCA GCACTGCCTT CACTCGCCGC TATCTGCTTT TTCGCCATGG 25320
 CGTGTCCGTT CCCTCCAGGG TAATTCATTA CTATAATTCT TACTGCAGAC CCGAAGCTGA 25380
 CCAAACCGC CACTCAGAGC AAAAAGAGCC GCCGGAGTGC CAGCGCGGCG CGCCCTOGCC 25440
 CTCCTCCTCT TCCTCCCAAG CGTGCTCGGG CGCCCCGCG CCCCAGAGGC CAGCGCCATC 25500
 AGGCCGACGA CGCAAGCACC GAGGGCCGCG ACAAGCTTCG GGAGCTGATC TTTCCCACTC 25560
 TCTATGCCAT ATTCCAACAA AGTCGCGCTC AGCGGTGTCA CCTCAAAGTG AAAAATAGAT 25620

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FIGURE 10

CCTTACGTTT ACTGACGCGC AGCTGCCTCT ACCACAACAA GGAGGAACAG CTCCAGCGAA 25680
 CCCTAGCAGA CTCCGAGGCG CTTCTCAGTA AATACTGCTC TGCAGCTCCG ACACGATTCT 25740
 CGCCGCCCTC TTATACCGAG TCTCCCGCCA AGGACGAATC CGGACCCGCC TAAACTCTCA 25800
 GCATGAGCAA AGAAATTCCC ACACCTTATG TTTGGACCTT TCAACCTCAG ATGGGAGCGG 25860
 CCGCAGGTGC CAGTCAAGAT TACTCGACCC GCATGAATTG GTTCAGCGCG GGACCTGATA 25920
 TGATCCACGA CGTTAACAAC ATTCGTGACG CCCAAAACCG CATCCTTATG ACTCAGTCGG 25980
 CCATTACCGC CACTCCCAGG AATCTGATTG ATCCCAGACA GTGGGCCGCC CACCTCATCA 26040
 AACAACCCGT GGTGGGCACC ACCCACGTGG AAATGCCTCG CAACGAAGTC CTAGAACAAC 26100
 ATCTGACCTC ACATGGCGCT CAAATCGCGG GCGGAGGCGC TCGGGGCGAT TACTTTAAAA 26160
 GCCCCACTTC AGCTCGAACC CTTATCCCGC TCACCGCCTC CTGCTTAAGA CCAGATGGAG 26220
 TCTTTCAACT AGGAGGAGGC TCGCGTTCAT CTTTCAACCC CCTGCAAACA GATTTTGCCT 26280
 TCCACGCCCT GCCCTCCAGA CCGCGCCACG GGGGCATAGG ATCCAGGCAG TTTGTAGAGG 26340
 AATTTGTGCC CGCCGTCTAC CTCAACCCCT ACTCGGGACC GCCGGACTCT TATCCGGACC 26400
 AGTTTATACG CCACTACAAC GTGTACAGCA ACTCTGTGAG CGGTTATAGC TGAGATTGTA 26460
 AGACTCTCCT ATCTGTCTCT GTGCTGCTTT TCCGCTTCAA GCCCCACAAG CATGAAGGGG 26520
 TTTCTGCTCA TCTTCAGCCT GCTTGTGCAT TGTCCCCTAA TTCATGTTGG GACCATTAGC 26580
 TTCTATGCTG CAAGGCCCGG GTCTGAGCCT AACGCGACTT ATGTTTGTGA CTATGGAAGC 26640
 GAGTCAGATT ACAACCCAC CACGGTTCTG TGGTTGGCTC GAGAGACCGA TGGCTCCTGG 26700
 ATCTCTGTTT TTTTCOGTCA CAACGGCTCC TCAACTGCAG CCCCCGGGGT CGTCGCGCAC 26760
 TTTACTGACC ACAACAGCAG CATTGTGGTG CCCAGTATT ACCTOCTCAA CAACTCACTC 26820
 TCTAAGCTCT GCTGCTCATA CCGGCACAAC GAGCGTTCTC AGTTTACCTG CAAACAAGCT 26880
 GACGTCCCTA CCGTGCACGA GCCCGGCAAG CCGCTCAACC TCCGCGTCTC CCCCOCGCTG 26940
 GGAAGTGGC ACCAAGCAGT CACTTGGTTT TTTCAAATG TACCCATAGC TACTGTTTAC 27000
 CGACCTTGGG GCAATGTAAC TTGGTTTTGT CCTCCCTTCA TGTGTACCTT TAATGTCAGC 27060
 CTGAACTCCC TACTTATTTA CAACTTTTCT GACAAAACCG GGGGGCAATA CACAGCTCTC 27120
 ATGCACTCCG GACCTGCTTC CCTCTTTCAG CTCTTTAAGC CAACGACTTG TGTACCAAG 27180
 GTGGAGGACC CGCCGTATGC CAACGACCCG GCCTCGCCTG TGTGGCGCCC ACTGCTTTTT 27240
 GCCTTCGTCC TCTGCACCGG CTGCGCGGTG TTGTAAACCG CCTTCGGTCC ATCGATTCTA 27300
 TCCGGTACCC GAAAGCTTAT CTCAGCCCGC TTTTGGAGTC CCGAGCCCTA TACCACCCTC 27360
 CACTAACAGT CCCCCATGG AGCCAGACGG AGTTCATGCC GAGCAGCAGT TTATCTCAA 27420
 TCAGATTTCC TCGCCCAACA CTGCCCTCCA GCGTCAAAGG GAGGAACTAG CTTCCCTTGT 27480

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FIGURE 1P

CATGTTGCAT GCCTGTAAGC GTGGCCTCTT TTGTCCAGTC AAAACTTACA AGCTCAGCCT 27540
 CAACGCCTCG GCCAGCGAGC ACAGCCTGCA CTTTGAAAAA AGTCCCTCCC GATTCAACCCT 27600
 GGTCAACACT CACGCCGGAG CTTCTGTGCG AGTGGCCCTA CACCACCAGG GAGCTTCCGG 27660
 CAGCATCCGC TGTTCCTGTT CCCACGCCGA GTGCCTCCCC GTCCTCCTCA AGACCCTCTG 27720
 TGCCTTTAAC TTTTGTAGATT AGCTGAAAGC AAATATAAAA TGGTGTGCTT ACCGTAATTC 27780
 TGTTTTGACT TGTGTGCTTG ATTTCTCCCC CTGCGCCGTA ATCCAGTGCC CCTCTTCAAA 27840
 ACTCTCGTAC CCTATGCGAT TCGCATAGGC ATATTTTCTA AAAGCTCTGA AGTCAACATC 27900
 ACTCTCAAAC ACTTCTCCGT TGTAGGTTAC TTTCATCTAC AGATAAAGTC ATCCACCGGT 27960
 TAACATCATG AAGAGAAGTG TGCCCCAGGA CTTTAATCTT GTGTATCCGT ACAAGGCTAA 28020
 GAGGCCCAAC ATCATGCCGC CCTTTTTTGA CCGCAATGGC TTTGTTGAAA ACCAAGAAGC 28080
 CACGCTAGCC ATGCTTGTGG AAAAGCCGCT CACGTTGAC AAGGAAGGTG CGCTGACCCT 28140
 GGGCGTCGGA CGCGGCATCC GCATTAAACCC CGCGGGGCTT CTGGAGACAA ACGACCTCGC 28200
 GTCCGCTGTC TTCCCACCGC TGGCCTCCGA TGAGGCCGGC AACGTCACGC TCAACATGTC 28260
 TGACGGGGCTA TATACTAAGG ACAACAAGCT AGCTGTCAAA GTAGGTCCCG GGCTGTCCCT 28320
 CGACTCCAAT AATGCTCTCC AGGTCCACAC AGGCGACGGG CTCACGGTAA CCGATGACAA 28380
 GGTGTCTCTA AATACCCAAG CTCCCCTCTC GACCACCAGC GCGGGCCTCT CCCTACTTCT 28440
 GGGTCCCAGC CTCCACTTAG GTGAGGAGGA ACGACTAACA GTAAACACCG GAGCGGGCCT 28500
 CCAAATTAGC AATAACGCTC TGGCCGTAAA AGTAGGTTCA GGTATCACCG TAGATGCTCA 28560
 AAACCAGCTC GCTGCATCCC TGGGGGACGG TCTAGAAAGC AGAGATAATA AAAGTGTCTG 28620
 TAAGGCTGGG CCCGGACTTA CAATAACTAA TCAAGCTCTT ACTGTTGCTA CCGGGAACGG 28680
 CCTTCAGGTC AACCCGGAAG GGCAACTGCA GCTAAACATT ACTGCCGGTC AGGGCCTCAA 28740
 CTTTGCAAAC AACAGCCTCG CCGTGGAGCT GGGCTCGGGC CTGCATTTTC CCCCTGGCCA 28800
 AAACCAAGTA AGCCTTTATC CCGGAGATGG AATAGACATC CGAGATAATA GGGTGACTGT 28860
 GCCCCTGGG CCAGGCCTGA GAATGCTCAA CCACCAACTT GCCGTAGCTT CCGGAGACGG 28920
 TTTAGAAGTC CACAGCGACA CCCTCCGGTT AAAGCTCTCC CACGGCCTGA CATTTGAAAA 28980
 TGGCGCCGTA CGAGCAAAAC TAGGACCAGG ACTTGGCACA GACGACTCTG GTCGGTCCGT 29040
 GGTTCGCACA GGTGAGGAC TTAGAGTTGC AAACGGCCAA GTCCAGATCT TCAGCGGAAG 29100
 AGGCACCGCC ATCGGCACTG ATAGCAGCCT CACTCTCAAC ATCCGGGCGC CCCTACAATT 29160
 TTCTGGACCC GCCTTGACTG CTAGTTTGCA AGGCAGTGGT CCGATTACTT ACAACAGCAA 29220
 CAATGGCACT TTCGGTCTCT CTATAGGCCC CGGAATGTGG GTAGACCAA ACAGACTTCA 29280

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FIGURE 1Q

GGTAAACCCA GGCCTGGTT TAGTCTTCCA AGGAAACAAC CTTGTCCCAA ACCTTGCGGA 29340
TCCGCTGGCT ATTTCCGACA GCAAATTAG TCTCAGTCTC GTCCCGGCC TGACCCAAGC 29400
TTCCAACGCC CTGACTTTAA GTTTAGGAAA CGGGCTTGAA TTCTCCAATC AAGCCGTTGE 29460
TATAAAAGCG GGCCGGGGCT TACGCTTTGA GTCTTCCTCA CAAGCTTTAG AGAGCAGCCT 29520
CACAGTCGGA AATGGCTTAA CGCTTACCGA TACTGTGATC CGCCCCAACC TAGGGGACGG 29580
CCTAGAGGTC AGAGACAATA AAATCATTGT TAAGCTGGGC GCGAATCTTC GTTTTGAAAA 29640
CGGAGCCGTA ACCGCCGGCA CCGTTAACCC TTCTGCGCCC GAGGCACCAC CAACTCTCAC 29700
TGCAGAACCA CCCCTCCGAG CCTCCAATC CCATCTTCAA CTGTCCCTAT CGGAGGGCTT 29760
GGTTGTGCAT AACAACGCCC TTGCTCTCCA ACTGGGAGAC GGCATGGAAG TAAATCAGCA 29820
CGGACTTACT TTAAGAGTAG GCTCGGGTTT GCAAATGCGT GACGGCATT TAAACAGTTAC 29880
ACCCAGCGGC ACTCCTATTG AGCCCAGACT GACTGCCCCA CTGACTCAGA CAGAGAATGG 29940
AATCGGGCTC GCTCTCGGCG CCGGCTTGGA ATTAGACGAG AGCGCGCTCC AAGTAAAAGG 30000
TGGGCCCGGC ATGCGCCTGA ACCCTGTAGA AAAGTATGTA ACCCTGCTCC TGGGTCCTGG 30060
CCTTAGTTTT GGGCAGCCGG CCAACAGGAC AAATTATGAT GTGCGCGTTT CTGTGGAGCC 30120
CCCCATGGTT TTCGGACAGC GTGGTCAGCT CACATTTTGA GTGGGTCACG GACTACACAT 30180
TCAAAATTCC AAATTCAGC TCAATTTGGG ACAAGGCCCTC AGAACTGACC CCGTCACCAA 30240
CCAGCTGGAA GTGCCCCCTC GTCAAGGTTT GGAAATTGCA GACGAATCCC AGGTTAGGGT 30300
TAAATTGGGC GATGGCCTGC AGTTTGATTC ACAAGCTCGC ATCACTACCG CTCCTAACAT 30360
GGTCACTGAA ACTCTGTGGA CCGGAACAGG CAGTAATGCT AATGTTACAT GGGGGGGCTA 30420
CACTGCCCCC GGCAGCAAAC TCTTTTTGAG TCTCACTCGG TTCAGCACTG GTCTAGTTTT 30480
AGGAAACATG ACTATTGACA GCAATGCATC CTTTGGGCAA TACATTAAAG CGGGACACGA 30540
ACAGATCGAA TGCTTTATAT TGTGAGACAA TCAGGGTAAC CTAAAAGAAG GATCTAACTT 30600
GCAAGGCACT TGGGAAGTGA AGAACAACCC CTCTGCTTCC AAAGCTGCTT TTTTGCCTTC 30660
CACCGCCCTA TACCCCATCC TCAACGAAAG CCGAGGGAGT CTCCTGGAA AAAATCTTGT 30720
GGGCATGCAA GCCATACTGG GAGGCGGGGG CACTTGCACT GTGATAGCCA CCCTCAATGG 30780
CAGACGCAGC AACAATATC CCGCGGGCCA GTCCATAATT TTCGTGTGGC AAGAATTCAA 30840
CACCATAGCC CGCCAACCTC TGAACCACTC TACACTTACT TTTTCTTACT GGAATTAAAT 30900
AAGTTGGAAA TAAAGAGTTA AACTGAATGT TTAAGTGCAA CAGACTTTTA TTGGTTTTGG 30960
CTCACAACAA ATTACAACAG CATAGACAAG TCATACCGGT CAAACAACAC AGGCTCTCGA 31020
AAACGGGCTA ACCGCTCCAA GAATCTGTCA CGCAGACGAG CAAGTCCTAA ATGTTTTTTC 31080
ACTCTCTTCG GGGCCAAGTT CAGCATGTAT CGGATTTTCT GCTTACACCT TTTTAGACAG 31140

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FIGURE 1R

CAGTTTACAC TCATTTCCGT TAAAGGATTA CAACTGCGGC ATATGAGAAT TAAGTATATA 31200
 CAACTATTGC CCTTTACCCA CAAACACTCC CCCCACGGGG TGCACCTGAT GTAGCTGCCC 31260
 TCCTCAATCA TGAAAGTGCT ATTAAAGTAA ATTAAATGAA CATTATTAC ATACAGGCTT 31320
 CCCACATAGG CCAAAAAAAC AGAGGACAAC TTTGACAGCT CCCGCCTGAA ATACCAATAC 31380
 ACTCTATCAA ACTGCGCACC GTGCACGCAC TGCTTTACCA GGCCTTGAAA GTAAACAGCG 31440
 GCGGACCGAC ACTGCAAGCT TCTAGGCTTT GGGCAGTGGC AGTGAATATA TAGCCACTCC 31500
 TCCCCATGCA CGTAGTAGGA ACGCCGCTTC CCGGAATCA CAAATGACAA GCAGTAGTCA 31560
 CAGAGGCAAC TAGTCAAGTG AGCGTCCTCC TGAGGCATGA TTACCTTCCA TGAATGGGC 31620
 CAGTGAATCA TAGTGGCAAA GCCAGCTGCA TCTGGAGCGC TGCGAACCTT GGCTACATGT 31680
 GGTGATTGGC GACGCAGATG GAGACAGGAC CTTGCATTCT GAAGACCACT GCAACAGCTT 31740
 CTGCGTACGC TTGTATTTAC AGTACATAAA AAAGCACTTT TGCCACAGAG CGGTCTTACT 31800
 CAACCGACAG CTTTTTCTT TCTGACGCTG CTTTCTGCTA CTCAGGTAGT ACAAGTCCAA 31860
 AAGAGCCAAA CGGACACTCA AATCCGGGTT ATCTCGATGC TGAAGCCAGA GTCCAAAAGT 31920
 AACCACGCTA AAAGCCTGCA TCCATATTTT GTAAGTCTG TAACTCCATC CCAGAGCCGG 31980
 GCACCGCACT TGGTCCACCA TAGCTGCAAA CAAACGGGAC AATTAAGGAA AGTAAAATGA 32040
 GCGCTGGGGG CGGACTCTTC TCCCGTTTCGT AGGAAACAGC CACGTATCAA ACACCCTTTT 32100
 CAACACTGGC TCTCCAGCCG CTACTCGTTG AATTAATTG TCCCTGTGCT CAAACAACCC 32160
 ACACTGGTAA CGGTGGTGGC TAGGCAACA TGTCAAATAG CACATAATCA TTTCTTCTAC 32220
 TTTAAGCAAA CATCGACTAG CAGACACTTC ACTTAATTCA GCACAGTCAT AGCAAGGAAT 32280
 GATTATACAC TTGTCATCTA ATCCACTGCC CATGTACACA TTGCCCCAGG CAAAAGTGGG 32340
 CAGGGACTTT AAGAGCTGAT TGCTCGCCCC GACATAGTTG GTAAAATACA GCAAATGCAC 32400
 CTTGTTAACA TACACACTCC CCACATAGTA AATATACCGA GTAGACAGCT TAGAAAGCTC 32460
 CCTCCGAAAA AATGGGAACA TGGTATCAAA GGCAGTGCCC GCAACACACA TCTTGAACAG 32520
 ATCCATCAGG ATAGTAGCTC GACACAGCCC CTGCAGACTT TGGTCAGCTT GCTTGCTGCA 32580
 GCAGTACACT CTCCACGTAG CATCTCCGCT GATGAAGTAT TCGCTATCGC AGCGACCAAA 32640
 AATACAGCAA TCACAAGGCA GACGCAACAG TCTTTCATCC AGACTGTTCA TGAGAGGCTT 32700
 TAGAGGTATG GGAAAAATC CAAAGTGCTC AAAATAAGCA GCGCTGGGCT CATTCTGACA 32760
 TTCCCCAAC ATGCTGAGTC GAACCATAGC ACAGTCATAC AAATCAGCT GTCGGAATTG 32820
 ATCTTCCATG ATTGAGTTTC TACTGAGATA TTATCTCAAA CTTAAACTG TTGCTCACCA 32880
 ACTCTATGCG AACTTGCTCA AGAAGCTCTT GGTTTAGGGC GACCTCTTCT GGTCTCGGA 32940

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Category	Item	Value	Unit
Food	Meat	100	kg
	Vegetables	50	kg
Clothing	Shirts	20	pieces
	Trousers	10	pieces
Housing	Rent	1000	Yuan
	Utilities	500	Yuan
Transportation	Bus fare	10	Yuan
	Taxi fare	20	Yuan
Education	School fees	500	Yuan
	Textbooks	100	Yuan
Healthcare	Doctor's fees	100	Yuan
	Medicine	50	Yuan
Recreation	Movie tickets	20	Yuan
	Travel expenses	100	Yuan
Miscellaneous	Gifts	100	Yuan
	Charity	50	Yuan

ATGATG

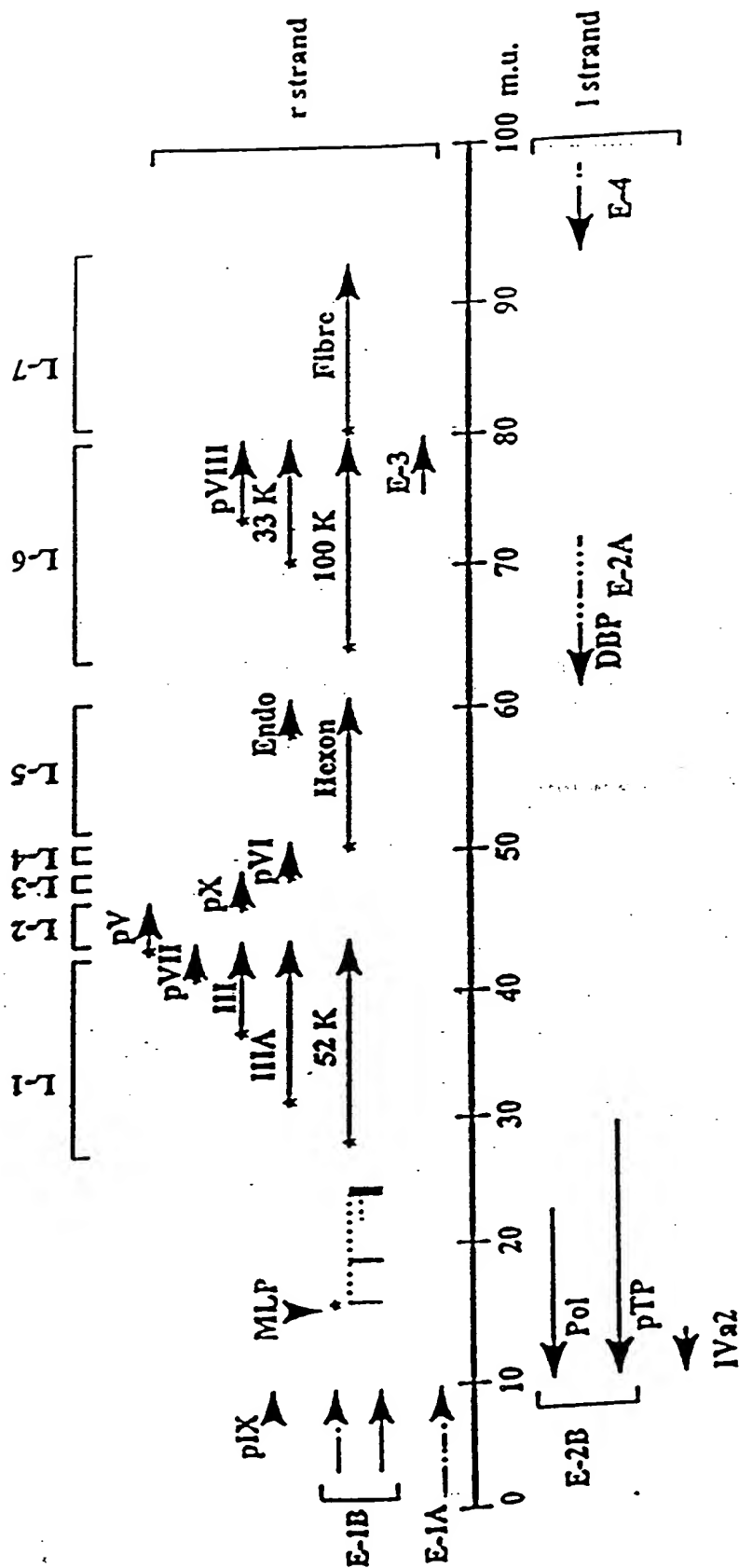
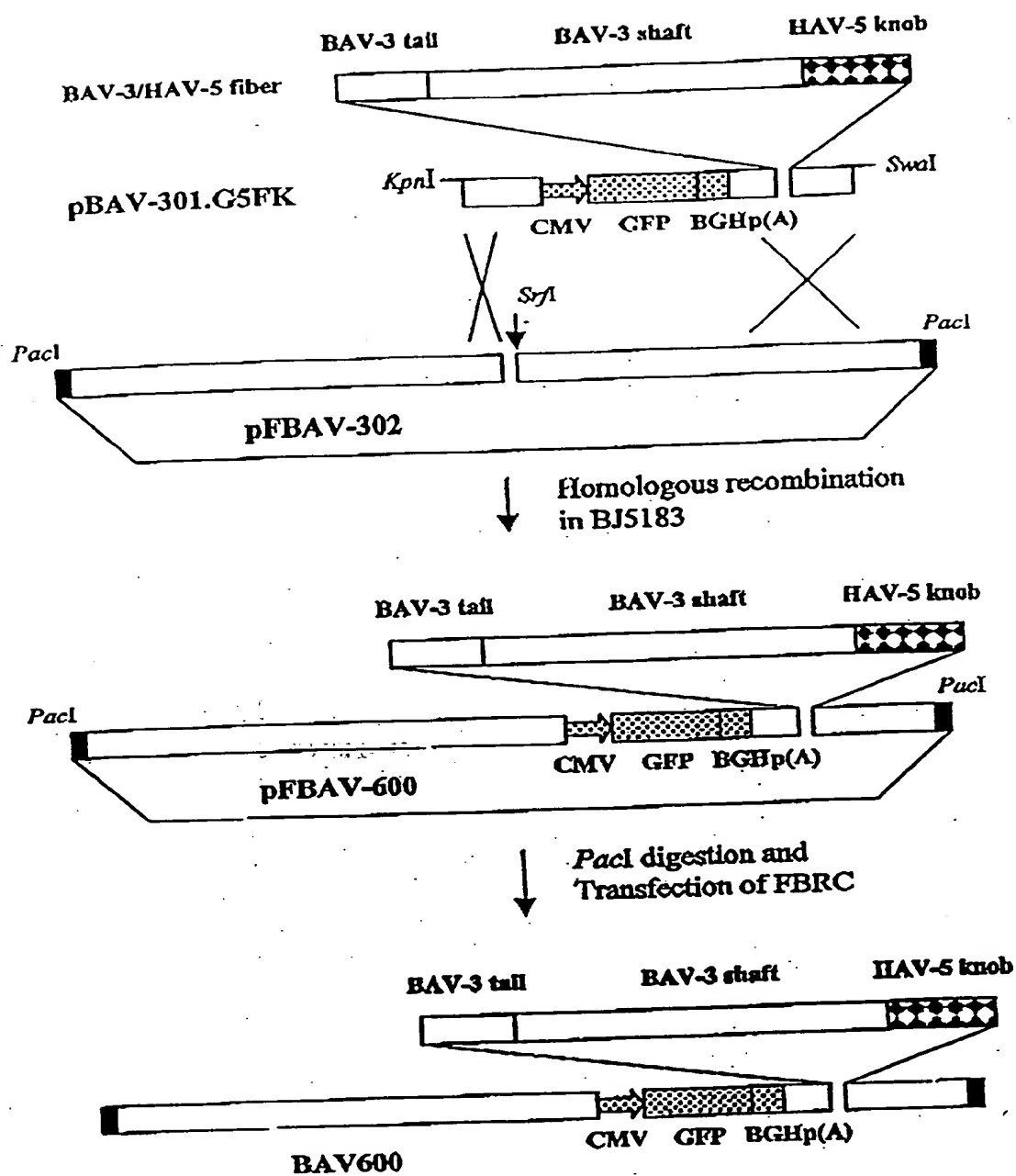


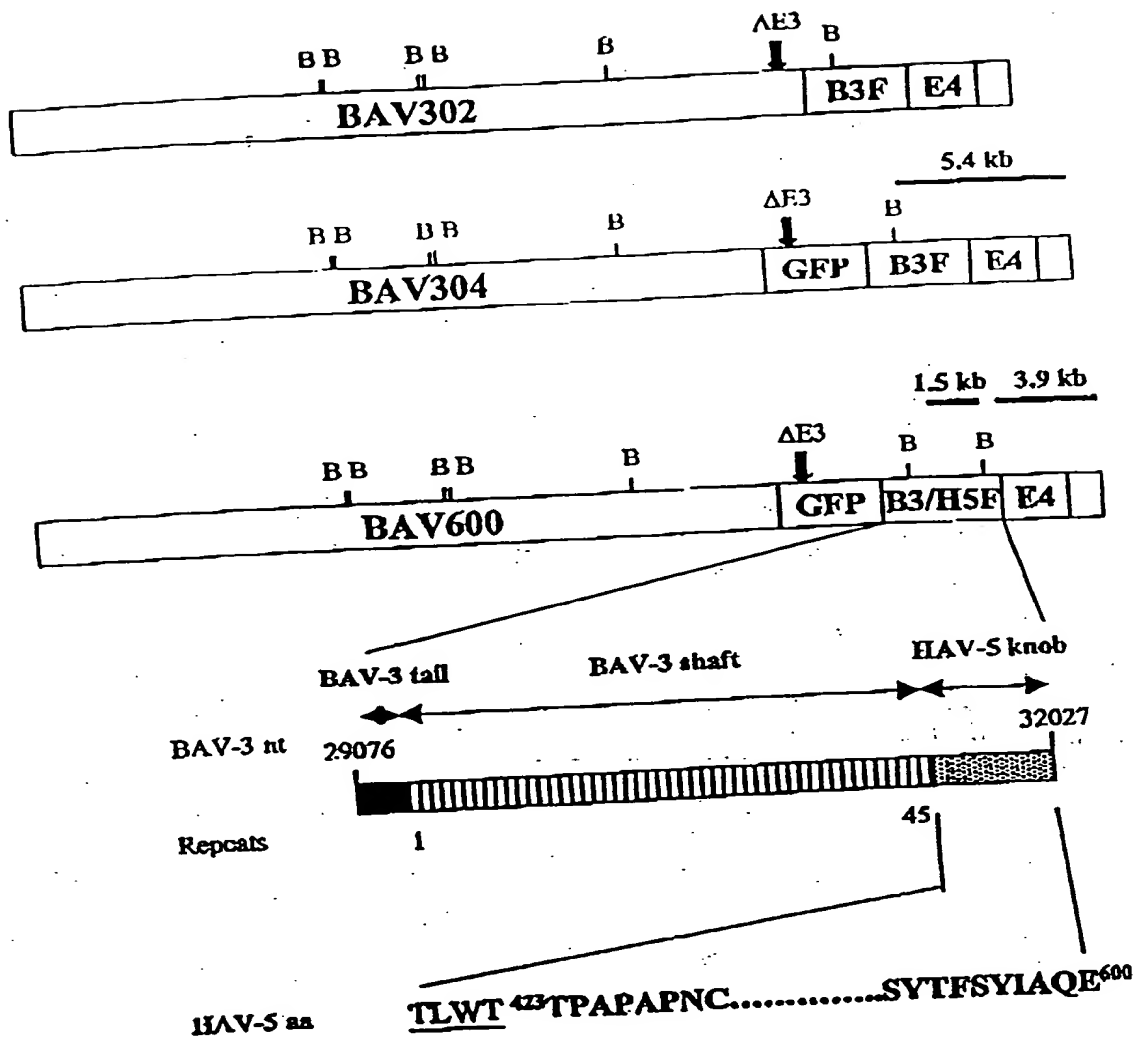
FIGURE 2

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Construction of BAV600

FIGURE 3



Characterization of BAV600

FIGURE 4

Analysis of BAV600 by Restriction Enzyme *Bgl*II Digestion

1 2 3 1 2 3

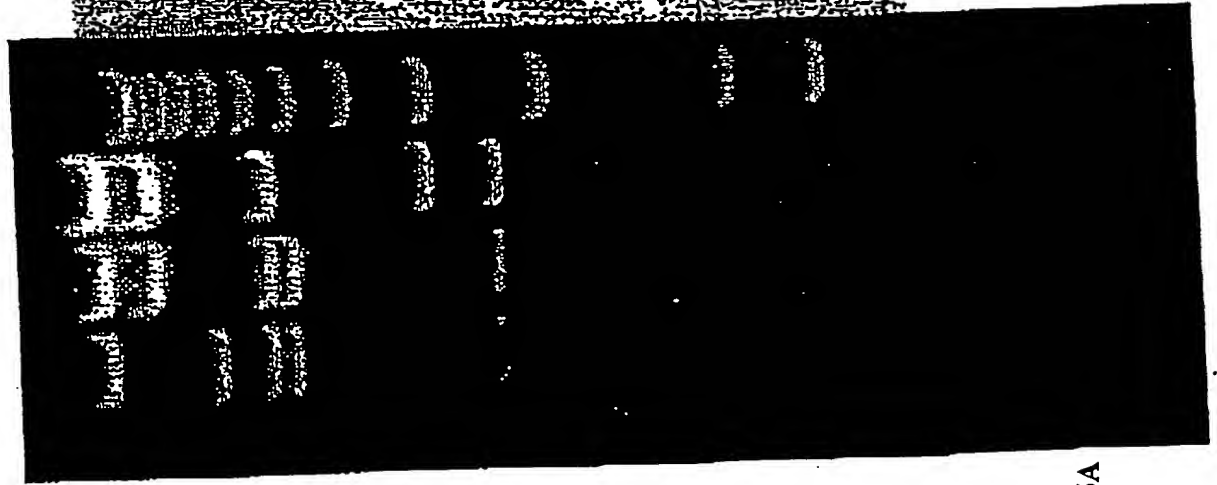
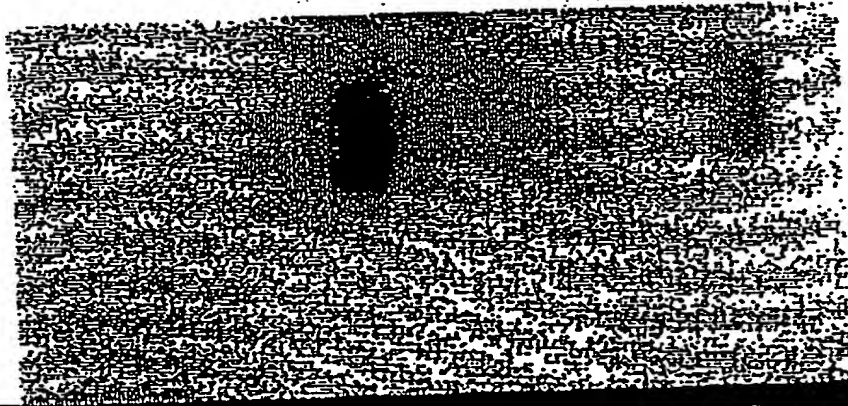


FIG. 5A



Lane 1. BAV302
2. BAV304
3. BAV600

FIG. 5B

Expression of HAV-5 Fiber Knob by BAV600

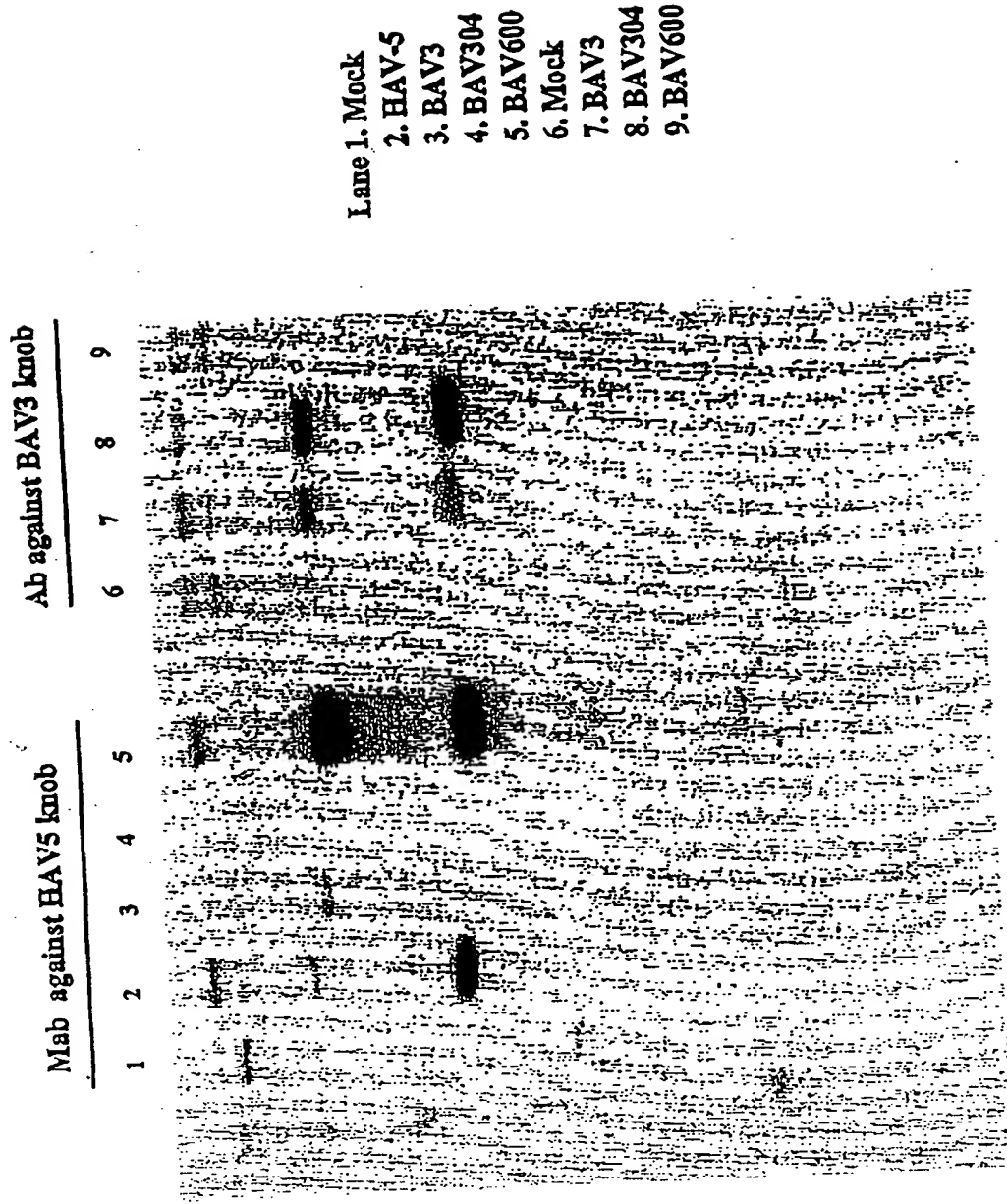
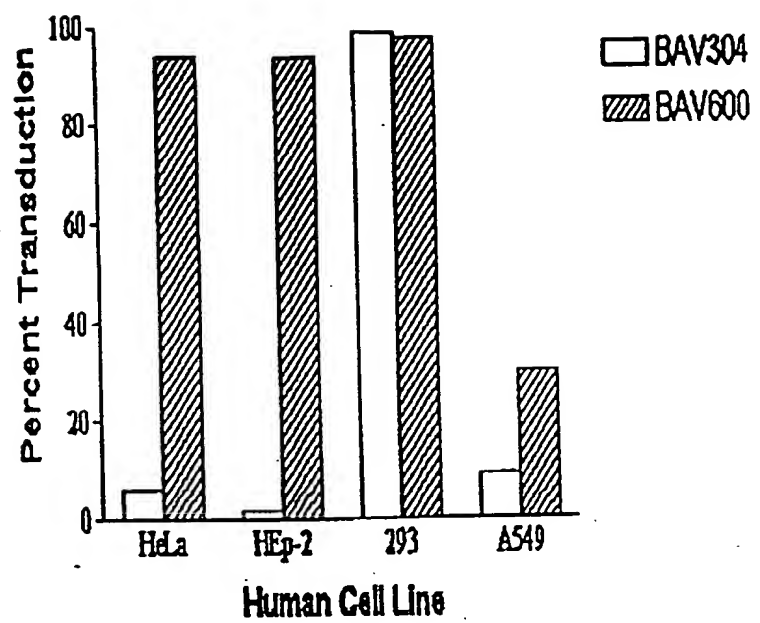


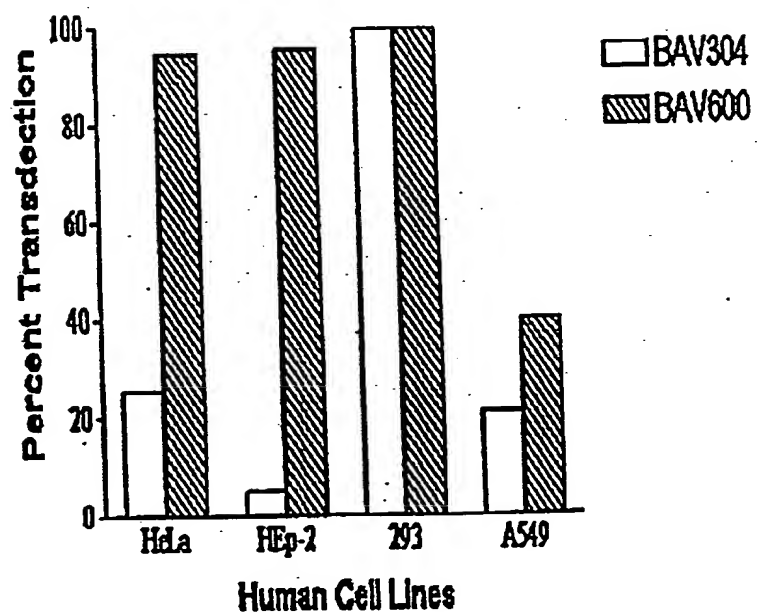
FIGURE 6

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7A.



7B.



Transduction of Human Cell Lines by BAV600.
A. MOI of 1. B. MOI of 5.

FIGURE 7A-7B

FACS Analysis of BAV304 and BAV600 Transduction of Human Cells

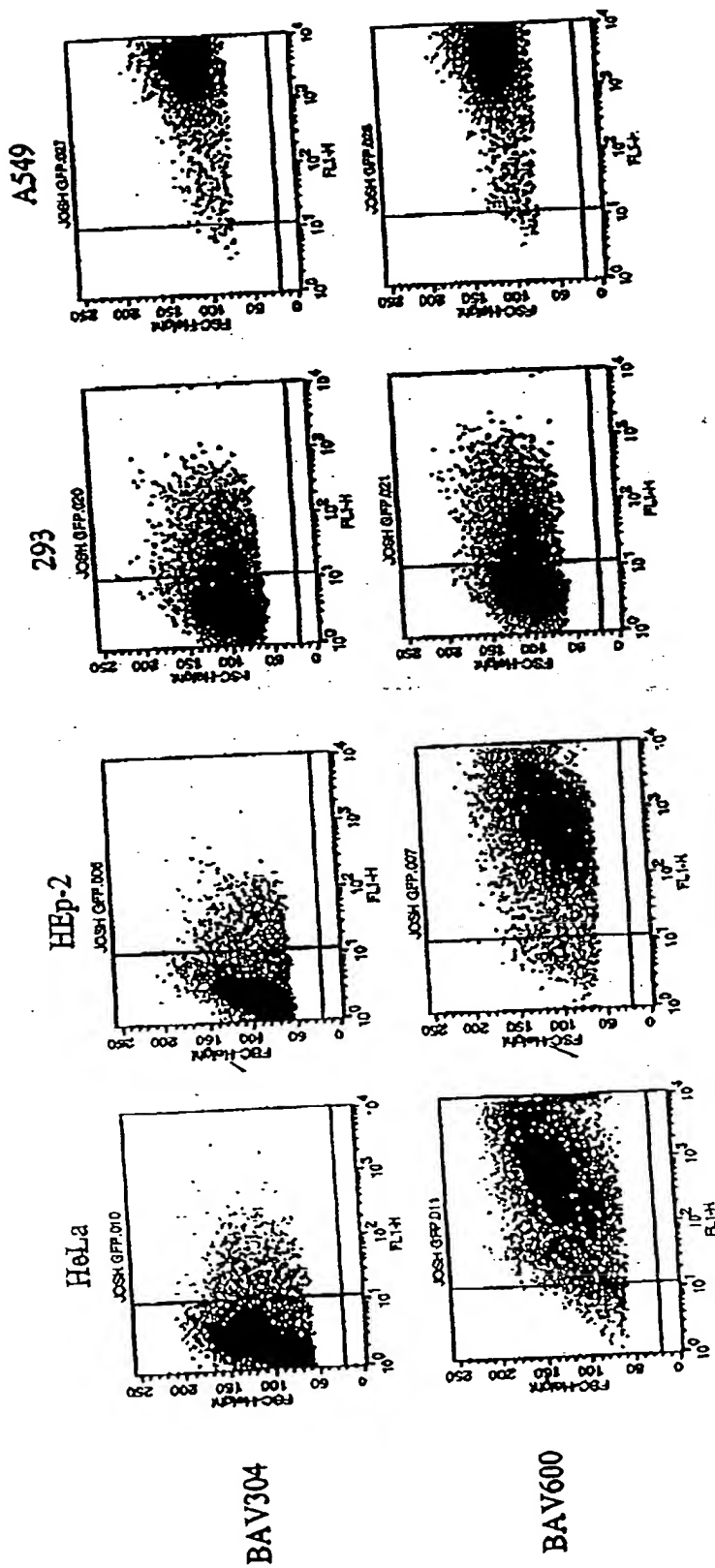


FIGURE 8

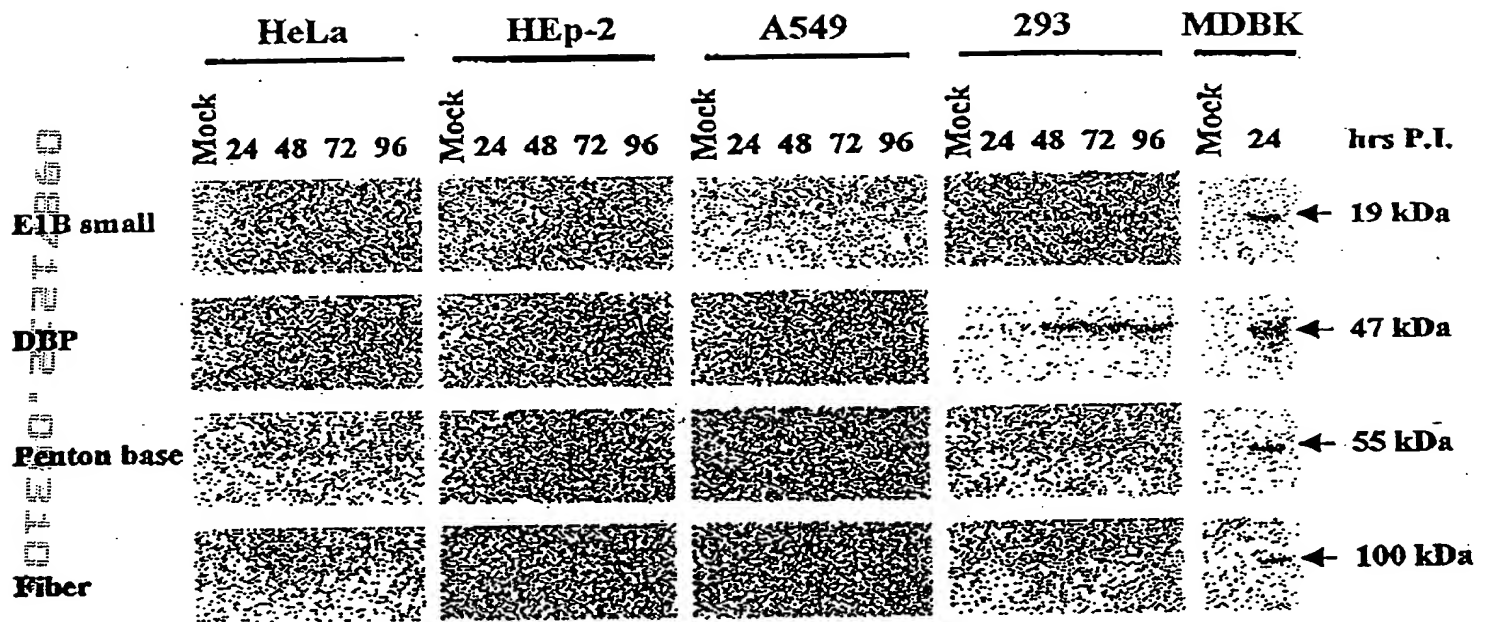


FIGURE 9

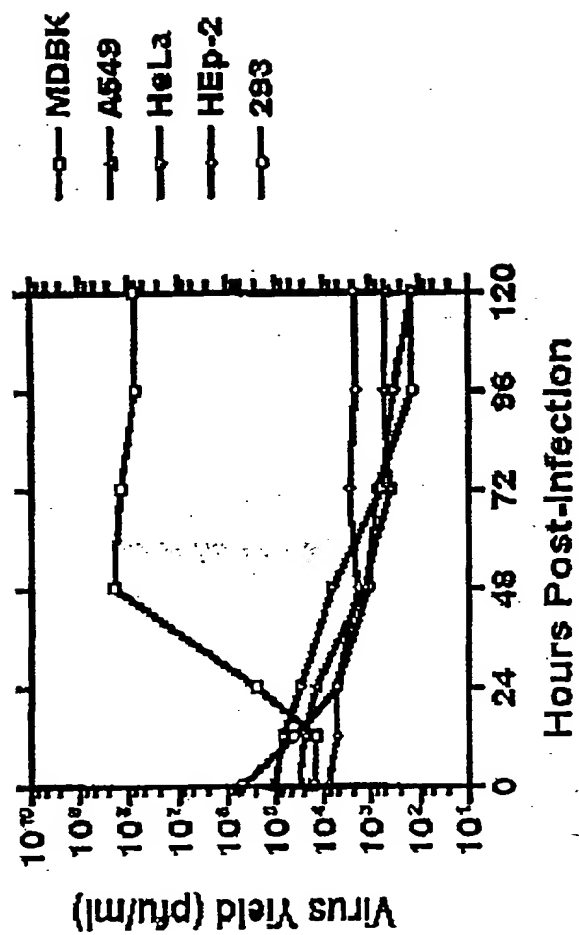


FIGURE 10

	Virus	
	BAV-3	BAV600
Normal Rabbit Serum	<1:50	<1:50
Rabbit Antiserum against BAV3 FK	1:800	<1:50
Monoclonal Ab against BHV gD (2C8)	<1:50	<1:50
Monoclonal Ab against HAd5 FK (1D6,14)	<1:50	1:3,200

FIGURE 11

	10	20	30	40	
MSVSSCSCPSAPTIFMLLMKRARPSEDTFNPVYPYDTET					40
GPPTVPFLTTPPFVSPNGFOESPPGVLSLRLSEPLVTSNGM					80
LALKMGNGLSLDEAGNLTSONVTTVSPPLKKTAKSNINLEI					120
SAPLTVTSEALTVA AAAAPLMVAGNTLTMQSQAPLTVHDSK					160
LSIATOGPLTVSEGKLALQTSGLTTTDSSTLTITASPPL					200
	210	220	230	240	
TTATGSLGIDLKEPIYTQNGKLGLKYGAPLHVTDDLNTLT					240
VATGPGVTINNTSLQTKVTGALGFDSQGNMQLNVAGGLRI					280
DSQNRRLILDVSYPFDAQNQLNLR LGQGPLFINSAHNLDI					320
NYNKGLYLFTASNNSKKLEVNLTAKGLMFDATAIAINAG					360
DGLEFGSPNAPNTNPLKTKIGHGLEFDSNKAMVPKLGTGL					400
	410	420	430	440	
SFDSTGAITVGKNNDKLT LWTPAPSPNCRLNAEKDAKL					440
TLVLTKCGSQILATVSVLAVKGSLAPISGTVQSAHLIIRF					480
DENGVL LNNSFLDPEYWNFRNGDLTEGTAYTNAVGFMPNL					520
SAYPKSHGKTAKSNI VSQVYLN GDKTKPVTLTITLNGTQE					560
TGDTTPSAYSMSFSWDWSGHNYINEIFATSSYTFSYIAQE					600

FIGURE 12

10 20 30 40
 MKRSVPQDFNLVYPYKAKRPNIMPPFFDRNGFVENQEATL 40
 AMLVEKPLTFDKEGALT LGVGRGIRINPAGLLETNDLASA 80
 VFPPLASDEAGNVTLNMSDGLYTKDNKLAVKVGPGLSLDS 120
 NNALQVHTGDGLTVTDDKVSLNTOAPLSTTSAGLSLLLGP 160
 SLHLGEEERLTVNTGAGLOISNNALAVKVGSGITVDAQNQ 200
 210 220 230 240
 LAASLGDGLESRDNKT VVKAGPGLTITNQALTVATGNGLO 240
 VNPEGQLQLNITAGQGLNFANNSLAVELGSGLHFPPGQNO 280
 VSLYPGDGIDIRDNRVTVPAGPGLRMLNHQLAVASGDGLE 320
 VHSDTLRLKLSHGLTFENGAVRAKLGPGGLGTDDSGRSVVR 360
 TGRGLRVANGOVQIFSGRGTAIGTDSSLTLNIRAPLOQFSG 400
 410 420 430 440
 PALTASLQSGSPITYNSNNGTFGLSIGPGMWVDQNRLOVN 440
 PGAGLVFQGNLVPNLADPLAISDSKISLSLGPGLTOASN 480
 ALTLSLGNGLEFSNQAVAIKAGRGLRFESSQALESSTLV 520
 GNGLTLTDTVIRPNLGDGLEVRDNKIIIVKLGANLRFENGA 560
 VTAGTVNPSAPEAPPTLTAEPPLRASNHLQLSLSEGLVV 600
 610 620 630 640
 HNNALALQLGDGMEVNQHGLTLRVGSGLQMRDGILTVTPS 640
 GTPIEPRLTAPLTQTENGIGLALGAGLELDESALQVKVGP 680
 GMRLNPVEKYVTL LLGPGLSFGQPANRTNYDVRVSVEPPM 720
 VFGQRGQLTFLVGHGLHIQNSKLQLNLGQGLRTDPVTNQL 760
 EVPLGGGLEIADESQVRVKLGDGLQFDSQARITTAPNMVT 800
 810 820 830 840
 ETLWTGTGSNANVTWRGYTAPGSKLFLSLTRFSTGLVLGN 840
 MTIDSNASFGQYINAGHEQIECFILLDNQGNLKEGSNLQG 880
 TWEVKNNPSASKAAFLPSTALYPILNESRGSPLPGKNLVGM 920
 QAILGGGGTCTVIATLNGRRSNNYPAGOSIIFVWQEFNTI 960
 ARQPLNHSTLTFSYWT 976

FIGURE 13

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10 20 30 40
MKRARWDPVYPFSEERLVPLPPFIEAGKGLKSEGLILSLN 40
FTDPITINOTGFLT VKLGDGIFINGEGGLSSTAPKVKVPL 80
TVSDETLQLLLSNSLTTESDSLALKOPQLPLKINDEGSLV 120
LNLNTPNLONERLSLNVSNPLKIAADSLTINLKEPLGLO 160
NESLGLNLSDPMNITPEGNLGIKLNPMKVEESSLALNYK 200
210 220 230 240
NPLAISNDALSINIANPLTVNTSGSLGISYSTPLRISNNA 240
LSLFIGKPLGLGTDGSLTVNLTRPLVCRONTLAINYSAPL 280
VSLQDNLTLSYAQPLTVSDNSLRSLNSPLNTNSDGKLSV 320
NYSNPLVVTDSNLTLSVKKPVMINNTGNVDLSFTAPIKLN 360
DAEQLTLETTEPLEVADNALKLKLKGKGLTVSNNALTLNLG 400
410 420 430 440
NGLTFQOGLLQIKTNSSLGFNASGELSTATKQGTITVNFL 440
STTPIAFGWQIIPTTVAFIYILSGTQFTPQSPVTSLGFP 480
PQDFLDFFVLSPFVTSVTQIVGNDVKVIGLTISKNOSTIT 520
MKFTSPLAENVPVSMFTAHOFRQ 544

FIGURE 14

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10 20 30 40
MGPKKQKRELPEDFDPVYPYDVPQLQINPPFVSGDGFNQS 40
VDGVLSLHIAPPLVFDNTRALTLAFGGGLQLSGKQLVVAT 80
EGSGLTTNPDGKLVKVKSPITLTAEGISLSLGPGLSNSE 120
TGLSLQVTAPLOFQGNALTLPLAAGLQNTDGGMGVKLGSG 160
LTTDNSOAVTVQVGNGLQLNGEGQLTVPATAPLVSGSAGI 200
210 220 230 240
SFNYSSNDFVLDNDSLRLPKAISVTPPLQSTEDTISLNY 240
SNDFSVDNGALTLAPTFKPYTLWTGASPTANVILTNTTTP 280
NGTFFLCLTRVGGLVLGSFALKSSIDLTSMTKKVNFIFDG 320
AGRLOSDSTYKGRFGFRSNDVIEPTAAGLSPAULMPSTF 360
IYPRNTSGSSLTSFVYINQTYVHVDIKVNTLSTNGYSLEF 400
410 420 430 440
NFQNMFSAPFSTSYGTFCYVPRRTTHRPRHGPFSLRERR 440
HLFQLLQQ 448

FIGURE 15

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FOUO

10 20 30 40
MKRTRRALPANYDPVYPYDAPGSSTQPPFFNNKQGLTESP 40
PGTLAVNVSPPLTFSTLGAIKLSTGPGLTLNEGKLOASLG 80
PGLITNTEGOITVENVNKVLSTSPPLHKNENTVSLALGDG 120
LEDENGLKVTFTPTPPPLOQSPPLTKTGGTVSLPLQDSM 160
QVTNGKLGVKPTTYAPPLKKTDQOVSLQVGSGLTVINEQL 200
210 220 230 240
QAVQPPATTYNEPLSKTDNSVSLOVGAGLAVQSGALVATP 240
PPPLTFTSPLEKNENTVSLOVGAGLSVQNNALVATPPPPL 280
TFAYPLVKNDNHVALSAGSGLRISGGSLTVATGPGLSHQN 320
GTIGAVVGAGLKFENNAI LAKLGNGLTIRDGAIEATQPPA 360
APITLWTGPGPSINGFINDTPVIRCFICLTRDSNLVTVNA 400
410 420 430 440
SFVGECCYRIVSPTQSQFSLIMEFDQFGOLMSTGNINSTT 440
TWGEKPWGNNTVQPRPSHTWKLCMPNREVYSTPAATISRC 480
GLDSIAVDGAPSRSIDCMLIINKPKGVATYTLTFRFLNFN 520
RLSGGTLFKTDVLTFTTYVGENQ 542

FIGURE 16

	M	K	R	S	R	X	X	X	P	X	P	X	D	P	X	X	L	Y	P	X	P	X	X	X	P	Q	X	D	X	F	Majority
										10										20										30	
1	M	S	V	S	S	C	S	C	P	S	A	P	T	I	F	M	L	L	Q	M	K	R	A	R	P	S	E	D	T	F	HAd5F.PRO
1	M	K	R	S	V	P	Q	D	F	N	L	V	Y	P	Y	K	A	K	R	P	N	I	M	P	P	F	F	D	R	N	BAV3F.pro
1	M	G	P	K	K	Q	K	R	E	L	P	E	D	F	D	P	V	Y	P	Y	D	V	P	Q	L	Q	I	N	P	P	PAV3F.pro
1	M	K	R	T	R	R	A	L	P	A	N	Y	D	P	V	Y	P	Y	D	A	P	G	S	S	T	Q	P	P	F	F	CAV2F.pro
1	M	K	R	A	R	W	D	P	V	Y	P	F	S	E	E	R	L	V	P	L	P	P	F	I	E	A	G	K	G	L	OAd287.PRO
										40										50										60	
	N	X	V	G	X	X	X	X	X	X	X	X	X	V	X	X	X	L	T	P	P	F	L	X	X	X	L	G	X	X	Majority
31	N	P	V	Y	P	Y	D	T	E	T	G	P	P	T	V	P	F	L	T	P	P	F	V	S	P	N	G	F	Q	E	HAd5F.PRO
31	G	F	V	E	N	Q	E	A	T	L	A	M	L	V	E	K	P	L	T	F	D	K	E	G	A	L	T	L	G	V	BAV3F.pro
31	F	V	S	G	D	G	F	N	Q	S	V	D	G	V	L	S	L	H	I	A	P	P	L	V	F	D	N	T	R	A	PAV3F.pro
31	N	N	K	Q	G	L	T	E	S	P	P	G	T	L	A	V	N	V	S	P	P	L	T	F	S	T	L	G	A	I	CAV2F.pro
31	K	S	E	G	L	I	L	S	L	N	F	T	D	P	I	T	I	N	Q	T	G	F	L	T	V	K	L	G	D	G	OAd287.PRO
0587-0594	X	X	X	X	G	X	G	G	L	L	L	E	G	K	X	X	X	V	X	X	X	G	L	X	L	T	T	X	L	X	Majority
										70										80										90	
61	S	P	P	G	V	L	S	L	R	L	S	E	P	L	V	T	S	N	G	M	L	A	L	K	M	G	N	G	L	S	HAd5F.PRO
61	G	R	G	I	R	I	N	P	A	G	L	L	E	T	N	D	L	A	S	A	V	F	P	P	L	A	S	D	E	A	BAV3F.pro
61	L	T	L	A	F	G	G	G	L	Q	L	S	G	K	Q	L	V	V	A	T	E	G	S	G	L	T	T	N	P	D	PAV3F.pro
61	K	L	S	T	G	P	G	L	T	L	N	E	G	K	L	Q	A	S	L	G	P	G	L	I	T	N	T	E	G	Q	CAV2F.pro
61	I	F	I	N	G	E	G	G	L	S	S	T	A	P	K	V	K	V	P	L	T	V	S	D	E	T	L	Q	L	L	OAd287.PRO
										100										110										120	
	G	X	V	X	L	N	X	K	S	X	S	X	T	T	X	X	P	X	L	X	K	T	G	S	G	L	S	L	D	X	Majority
91	L	D	E	A	G	N	L	T	S	Q	N	V	T	T	V	S	P	P	L	K	K	T	K	S	N	I	N	L	E	I	HAd5F.PRO
91	G	N	V	T	L	N	M	S	D	G	L	Y	T	K	D	N	K	L	A	V	K	V	G	P	G	L	S	L	D	S	BAV3F.pro
91	G	K	L	V	L	K	V	K	S	P	I	T	L	T	A	E	G	I	S	L	S	L	G	P	G	L	S	N	S	E	PAV3F.pro
91	I	T	V	E	N	V	N	K	V	L	S	F	T	S	P	L	H	K	N	E	N	T	V	S	L	A	L	G	D	G	CAV2F.pro
91	L	S	N	S	L	T	T	E	S	D	S	L	A	L	K	Q	P	Q	L	P	L	K	I	N	D	E	G	S	L	V	OAd287.PRO
										130										140										150	
	L	N	L	L	T	V	T	T	X	X	L	X	X	X	X	A	P	L	X	P	L	X	X	A	L	X	S	T	T	Majority	
121	S	A	P	L	T	V	T	S	E	A	L	T	V	A	A	A	A	P	L	M	V	A	G	N	T	L	T	M	Q	S	HAd5F.PRO
121	N	N	A	L	Q	V	H	T	G	D	G	L	T	V	T	D	D	K	V	S	L	N	T	Q	A	P	L	S	T	T	BAV3F.pro
121	T	G	L	S	L	Q	V	T	A	P	L	Q	F	Q	G	N	A	L	T	L	P	L	A	A	G	L	Q	N	T	D	PAV3F.pro
121	L	E	D	E	N	G	T	L	K	V	T	F	P	T	P	P	P	L	Q	F	S	P	P	L	T	K	T	G	G	CAV2F.pro	
121	L	N	L	N	T	P	L	N	L	Q	N	E	R	L	S	L	N	V	S	N	P	L	K	I	A	A	D	S	L	T	OAd287.PRO

	X	A	X	L	X	L	L	G	S	X	L	X	T	L	G	X	X	X	V	T	V	X	N	G	X	P	X	L	Q	X	Majority
	160										170										180										
151	Q	A	P	L	T	V	H	D	S	K	L	S	I	A	T	Q	G	P	L	T	V	S	E	G	K	L	A	L	Q	T	HAd5F.PRO
151	S	A	G	L	S	L	L	L	G	P	S	L	H	L	G	E	E	E	R	L	T	V	N	T	G	A	G	L	Q	I	BAV3F.pro
151	G	G	M	G	V	K	L	G	S	G	L	T	T	D	N	S	Q	A	V	T	V	Q	V	G	N	G	L	Q	L	N	PAV3F.pro
151	T	V	S	L	P	L	Q	D	S	M	Q	V	T	N	G	K	L	G	V	K	P	T	T	Y	A	P	P	L	K	K	CAV2F.pro
151	I	N	L	K	E	P	L	G	L	Q	N	E	S	L	G	L	N	L	S	D	P	M	N	I	T	P	E	G	N	L	OAd287.PRO
	G	X	X	L	L	T	V	X	V	G	S	G	L	T	V	A	S	X	X	L	X	A	A	X	X	S	N	G	X	X	Majority
	190										200										210										
181	S	G	P	L	T	T	T	D	S	S	T	L	T	I	T	A	S	P	P	L	T	T	A	T	G	S	L	G	I	D	HAd5F.PRO
181	S	N	N	A	L	A	V	K	V	G	S	G	I	T	V	D	A	Q	N	Q	L	A	A	S	L	G	D	G	L	E	BAV3F.pro
181	G	E	G	Q	L	T	V	P	A	T	A	P	L	V	S	G	S	A	G	I	S	F	N	Y	S	S	N	D	F	V	PAV3F.pro
181	T	D	Q	Q	V	S	L	Q	V	G	S	G	L	T	V	I	N	E	Q	L	Q	A	V	Q	P	P	A	T	T	Y	CAV2F.pro
181	G	I	K	L	K	N	P	M	K	V	E	E	S	S	L	A	L	N	Y	K	N	P	L	A	I	S	N	D	A	L	OAd287.PRO
	L	X	N	X	S	X	T	L	N	X	K	X	G	L	V	X	G	X	L	A	S	T	X	D	T	L	S	X	L	X	Majority
	220										230										240										
211	L	K	E	P	I	Y	T	Q	N	G	K	L	G	L	K	Y	G	A	P	L	H	V	T	D	D	L	N	T	L	T	HAd5F.PRO
211	S	R	D	N	K	T	V	V	K	A	G	P	G	L	T	I	T	N	Q	A	L	T	V	A	T	G	N	G	L	Q	BAV3F.pro
211	L	D	N	D	S	L	S	L	R	P	K	A	I	S	V	T	P	P	L	Q	S	T	E	D	T	I	S	L	N	Y	PAV3F.pro
211	N	E	P	L	S	K	T	D	N	S	V	S	L	Q	V	G	A	G	L	A	V	Q	S	G	A	L	V	A	T	P	CAV2F.pro
211	S	I	N	I	A	N	P	L	T	V	N	T	S	G	S	L	G	I	S	Y	S	T	P	L	R	I	S	N	N	A	OAd287.PRO
	V	N	P	F	X	G	X	X	L	N	L	T	X	X	Q	T	L	X	X	X	X	L	X	X	L	V	X	X	N	N	Majority
	250										260										270										
241	V	A	T	G	P	G	V	T	I	N	N	T	S	L	Q	T	K	V	T	G	A	L	G	F	D	S	Q	G	N	M	HAd5F.PRO
241	V	N	P	E	G	Q	L	Q	L	N	I	T	A	G	Q	G	L	N	F	A	N	N	S	L	A	V	E	L	G	S	BAV3F.pro
241	S	N	D	F	S	V	D	N	G	A	L	T	L	A	P	T	F	K	P	Y	T	L	W	T	G	A	S	P	T	A	PAV3F.pro
241	P	P	P	L	T	F	T	S	P	L	E	K	N	E	N	T	V	S	L	Q	V	G	A	G	L	S	V	Q	N	N	CAV2F.pro
241	L	S	L	F	I	G	K	P	L	G	L	G	T	D	G	S	L	T	V	N	L	T	R	P	L	V	C	R	Q	N	OAd287.PRO
	X	L	X	X	T	P	G	X	P	L	V	S	L	Y	P	L	L	X	L	D	V	X	X	P	L	X	A	S	X	A	Majority
	280										290										300										
271	Q	L	N	V	A	G	G	L	R	I	D	S	Q	N	R	R	L	I	L	D	V	S	Y	P	F	D	A	Q	N	Q	HAd5F.PRO
271	G	L	H	F	P	P	G	Q	N	Q	V	S	L	Y	P	G	D	G	I	D	I	R	D	N	R	V	T	V	P	A	BAV3F.pro
271	N	V	I	L	T	N	T	T	T	P	N	G	T	F	F	L	C	L	T	R	V	G	G	L	V	L	G	S	F	A	PAV3F.pro
271	A	L	V	A	T	P	P	P	P	L	T	F	A	Y	P	L	V	K	N	D	N	H	V	A	L	S	A	G	S	G	CAV2F.pro
271	T	L	A	I	N	Y	S	A	P	L	V	S	L	Q	D	N	L	T	L	S	Y	A	Q	P	L	T	V	S	D	N	OAd287.PRO

FIGURE 17B

	L	X	X	L	X	G	L	X	P	L	T	N	S	X	G	X	L	D	X	N	Y	S	X	L	V	L	T	X	Majority		
	310										320										330										
301	L	N	L	R	L	G	Q	G	P	L	F	I	N	S	A	H	N	L	D	I	N	Y	N	K	G	L	Y	L	F	T	HAd5F.PRO
301	G	P	G	L	R	M	L	N	H	Q	L	A	V	A	S	G	D	G	L	E	V	H	S	D	T	L	R	L	K	L	BAV3F.pro
301	L	K	S	S	I	D	L	T	S	M	T	K	K	V	N	F	I	F	D	G	A	G	R	L	Q	S	D	S	T	Y	PAV3F.pro
301	L	R	I	S	G	G	S	L	T	V	A	T	G	P	G	L	S	H	Q	N	G	T	I	G	A	V	V	G	A	G	CAV2F.pro
301	S	L	R	L	S	L	N	S	P	L	N	T	N	S	D	G	K	L	S	V	N	Y	S	N	P	L	V	V	T	D	OAd287.PRO
	S	X	X	X	X	F	X	X	X	A	V	L	I	N	X	T	G	X	X	D	X	A	X	X	A	X	I	X	X	X	Majority
	340										350										360										
331	A	S	N	N	S	K	K	L	E	V	N	L	S	T	A	K	G	L	M	F	D	A	T	A	I	A	I	N	A	G	HAd5F.PRO
331	S	H	G	L	T	F	E	N	G	A	V	R	A	K	L	G	P	G	L	G	T	D	D	S	G	R	S	V	V	R	BAV3F.pro
331	K	G	R	F	G	F	R	S	N	D	S	V	I	E	P	T	A	A	G	L	S	P	A	W	L	M	P	S	T	F	PAV3F.pro
331	L	K	F	E	N	N	A	I	L	A	K	L	G	N	G	L	T	I	R	D	G	A	I	E	A	T	Q	P	P	A	CAV2F.pro
331	S	N	L	T	L	S	V	K	K	P	V	M	I	N	N	T	G	N	V	D	L	S	F	T	A	P	I	K	L	N	OAd287.PRO
	D	G	X	X	L	T	S	G	N	G	P	X	X	N	V	X	I	N	X	T	X	V	G	L	D	F	X	L	T	T	Majority
	370										380										390										
361	D	G	L	E	F	G	S	P	N	A	P	N	T	N	P	L	K	T	K	I	G	H	G	L	E	F	D	S	N	K	HAd5F.PRO
361	T	G	R	G	L	R	V	A	N	G	Q	V	Q	I	F	S	G	R	G	T	A	I	G	T	D	S	S	L	T	L	BAV3F.pro
361	I	Y	P	R	N	T	S	G	S	S	L	T	S	F	V	Y	I	N	Q	T	Y	V	H	V	D	I	K	V	N	T	PAV3F.pro
361	A	P	I	T	L	W	T	G	P	G	P	S	I	N	G	F	I	N	D	T	P	V	I	R	C	F	I	C	L	T	CAV2F.pro
361	D	A	E	Q	L	T	L	E	T	T	E	P	L	E	V	A	D	N	A	L	K	L	K	L	G	K	G	L	T	V	OAd287.PRO
	X	X	X	A	L	L	X	X	X	G	S	F	L	T	X	G	X	X	X	X	G	S	K	T	N	S	S	L	X	L	Majority
	400										410										420										
391	A	M	V	P	K	L	G	T	G	L	S	F	D	S	T	G	A	I	T	V	G	N	K	N	N	D	K	L	T	L	HAd5F.PRO
391	N	I	R	A	P	L	Q	F	S	G	P	A	L	T	A	S	L	Q	G	S	G	P	I	T	Y	N	S	N	N	G	BAV3F.pro
391	L	S	T	N	G	Y	S	L	E	F	N	F	Q	N	M	S	F	S	A	P	F	S	T	S	Y	G	T	F	C	Y	PAV3F.pro
391	R	D	S	N	L	V	T	V	N	A	S	F	V	G	E	G	G	Y	R	I	V	S	P	T	Q	S	Q	F	S	L	CAV2F.pro
391	S	N	N	A	L	T	L	N	L	G	N	G	L	T	F	Q	Q	G	L	L	Q	I	K	T	N	S	S	L	G	F	OAd287.PRO
	X	X	X	X	X	S	P	X	X	X	X	X	N	X	X	X	X	L	T	L	X	X	L	X	F	G	X	N	Majority		
	430										440										450										
421	W	T	T	P	A	P	S	P	N	C	R	L	N	A	E	K	D	A	K	L	T	L	V	L	T	K	C	G	S	Q	HAd5F.PRO
421	T	F	G	L	S	I	G	P	G	M	W	V	D	Q	N	R	L	Q	V	N	P	G	A	G	L	V	F	Q	G	N	BAV3F.pro
421	V	P	R	R	T	T	H	R	P	R	H	G	P	F	S	L	R	E	R	R	H	L	F	Q	L	L	Q	Q			PAV3F.pro
421	I	M	E	F	D	Q	F	G	Q	L	M	S	T	G	N	I	N	S	T	T	T	W	G	E	K	P	W	G	N	N	CAV2F.pro
421	N	A	S	G	E	L	S	T	A	T	K	O	G	T	I	T	V	N	F	L	S	T	T	P	I	A	F	G	W	Q	OAd287.PRO

FIGURE 17C

	I L X T X X A X X X R L S X X X I S X X S X P A X L I X R X	Majority
	460 470 480	
451	I L A T V S V L A V K G S L A P I S G T V Q S A H L I I R F	HAd5F.PRO
451	N L V P N L A D P L A I S D S K I S L S L G P G L T Q A S N	BAV3F.pro
448		PAV3F.pro
451	T V Q P R P S H T W K L C M P N R E V Y S T P A A T I S R C	CAV2F.pro
451	I I P T T V A F I Y I L S G T Q F T P Q S P V T S L G F Q P	OAd287.PRO
	X L D X X L X N G L X X X X X X V X X I X G X X X X V X X Y	Majority
	490 500 510	
481	D E N G V L L N N S F L D P E Y W N F R N G D L T E G T A Y	HAd5F.PRO
481	A L T L S L G N G L E F S N Q A V A I K A G R G L R F E S S	BAV3F.pro
448		PAV3F.pro
481	G L D S I A V D G A P S R S I D C M L I I N K P K G V A T Y	CAV2F.pro
481	P Q D F L D F F V L S P F V T S V T Q I V G N D V K V I G L	OAd287.PRO
	T X A X X F S X X X X X X X X X L X K T X X X N X X X X X E	Majority
	520 530 540	
511	T N A V G F M P N L S A Y P K S H G K T A K S N I V S Q V Y	HAd5F.PRO
511	S Q A L E S S L T V G N G L T L T D T V I R P N L G D G L E	BAV3F.pro
448		PAV3F.pro
511	T L T F R F L N F N R L S G G T L F K T D V L T F T Y V G E	CAV2F.pro
511	T I S K N Q S T I T M K F T S P L A E N V P V S M F T A H Q	OAd287.PRO
	X R - - - - -	Majority
	550 560 570	
541	L N G D K T K P V T L T I T L N G T Q E T G D T T P S A Y S	HAd5F.PRO
541	V R D N K I I V K L G A N L R F E N G A V T A G T V N P S A	BAV3F.pro
448		PAV3F.pro
541	N Q	CAV2F.pro
541	F R Q .	OAd287.PRO
	- - - - -	Majority
	580 590 600	
571	M S F S W D W S G H N Y I N E I F A T S S Y T F S Y I A Q E	HAd5F.PRO
571	P E A P P T L T A E P P L R A S N S H L Q L S L S E G L V V	BAV3F.pro
448		PAV3F.pro
542		CAV2F.pro
544		OAd287.PRO

FIGURE 17 D

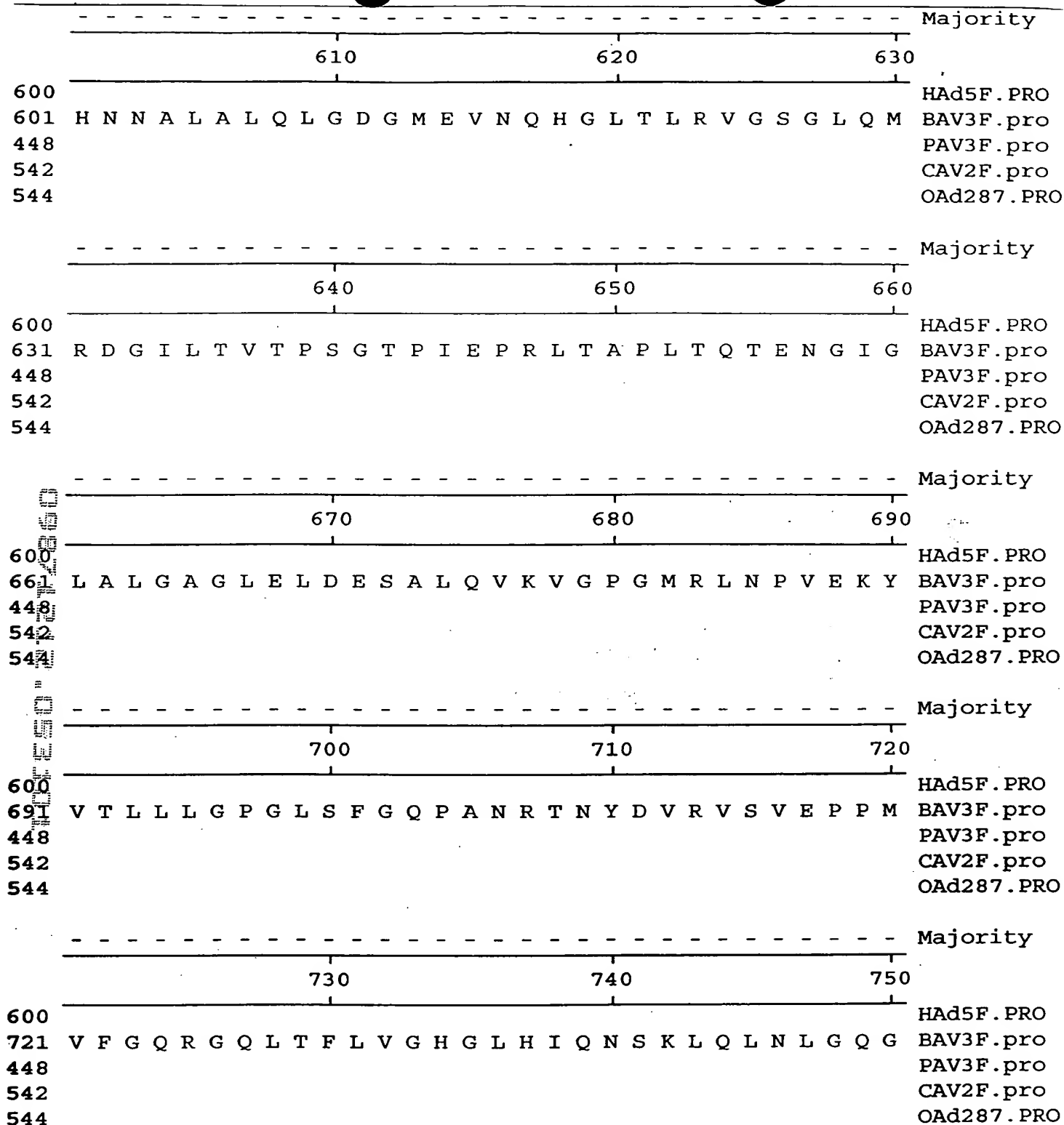


FIGURE 17E

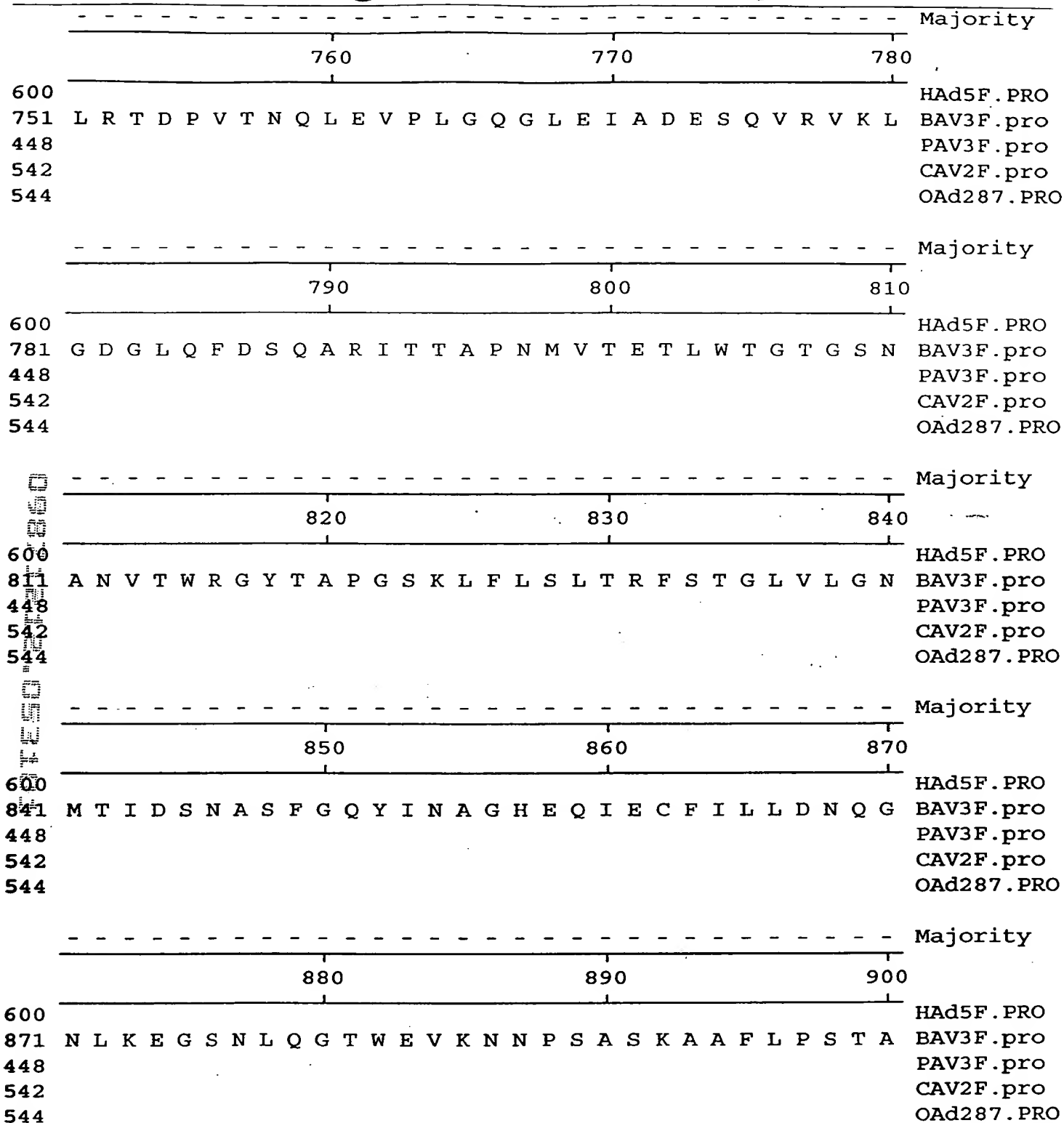


FIGURE 17F

